



E S S E N T I A L G U L D E

# HOW TO SAFELY SANITIZE TACTICAL AND PROTECTIVE GEAR

Learn about the dangers of unsanitary military and first responder gear, how traditional cleaning methods fall short, and a safer and more effective way to sanitize and deodorize gear.





Our military and first responders risk their lives in the line of duty—but they shouldn't be risking their lives in field bases, stations, or firehouses. Protective gear designed to keep these heroes safe can harbor dangerous germs, but the result of improper upkeep can be deadly.

# AT A GLANCE **Unsanitary Gear is Unsafe and Costly** MRSA Threat Odor and Discomfort 5 Replacing Gear is Expensive What's at stake? **Traditional Sanitizing Methods Fall Short** 6 **Body Armor K9** Bite Suits Turnout Gear **Introducing: Decon Zone** The Power of Ozone Our Proven Process Start Sanitizing with Decon Zone





# UNSANITARY GEAR IS UNSAFE AND COSTLY

# **MRSA THREAT**

You might think of MRSA as a healthcare-related issue, but community exposure to MRSA has been threatening law enforcement, firefighters, and soldiers more and more. Due to community outreach and tight quarters, members of the military and first responders experience significantly higher rates of MRSA than the general public.

A whopping **22.5% of firefighters are MRSA carriers** — over 10 times the carrier rate in the general population.

Military members both stateside and stationed abroad experience a 4% carrier rate as well, making them twice more likely to carry MRSA than the general population. Military members are also less likely to properly diagnose MRSA. When living in the barracks, soldiers often blame MRSA skin lesions on spider bites or other environmental causes — leaving MRSA to fester untreated for even longer.

When a MRSA carrier comes into contact with an open wound, the MRSA bacteria have the opportunity to colonize and infect the site of the wound. This leads to a painful, pimple-like rash that often appears red, swollen, and filled with pus. Due to growing antibiotic resistance,

MRSA is increasingly difficult to treat with medications.

In cases where MRSA is left untreated, the results can be deadly. Some of the most dangerous potential outcomes of MRSA include:

- · Bloodstream infections
- Pneumonia
- Amputation
- Sepsis

Even if you're not infected with MRSA, just being a carrier can be equally as risky. A study from the University of Florida found that MRSA carriers have a significantly higher mortality rate than non-carriers, resulting in premature deaths.



MRSA can live on surfaces for up to 7 months.

Studies have also noted that gear kept in firehouses and barracks are the likely culprits for rampant MRSA transmission. MRSA can live on surfaces for up to seven months and these shared living spaces offer MRSA bacteria the opportunity to grow and thrive, leaving your unit vulnerable to infections and outbreaks.







While MRSA is already a big enough issue on its own, our soldiers and first responders also shouldn't have to deal with odorous, uncomfortable gear. Heavy body armor and turnout gear can get extremely sweaty, especially in the heat of summer.

"At one of my duty stations, you'd put the gear on and just start sweating profusely for an extended period of time. And right after that, guys would come in for the next shift and put on that same jacket just a few hours later, starting the whole sweaty process over again."

**Barton Gonzales** 

Protective Service Officer, USAF

# **How a K9 Team Solved Its Sanitation Crisis**

How a K9 Team Solved Its Sanitation C...



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# REPLACING GEAR IS EXPENSIVE

Like most government-funded programs, police departments, fire stations, and military bases aren't flush with cash. When you invest in gear, you need it to last. With traditional sanitizing methods, gear simply doesn't last as long. Water and other liquid detergents soak materials, causing gear to break down and rip much sooner than you might expect. Our communities simply don't have the resources to constantly repurchase and replace expensive gear due to improper upkeep practices.

## **Protective Gear is Pricey**

Firefighter Turnout Suit : \$13,000
Bulletproof Vest : \$1,000
K9 Training Bite Suit : \$1,800
Army Helmet : \$400

The bite suits and sleeves get pretty soiled and we needed a way to clean them without reducing the shelf life – we really needed to get the most bang for our buck out of them."

# **Barton Gonzales**

Protective Service Officer, USAF





TRADITIONAL SANITIZING METHODS FALL SHORT

Sometimes the best we could do would be to hang a suit up on a big coat rack, put it out in the sun, and hope that would take care of some of the sanitation with just fresh air and sun."

**Barton Gonzales** 

Protective Service Officer, USAF



# **BODY ARMOR**

#### **Never Use Water**

Body armor and bulletproof vests are designed to protect police and military while on the job, but unfortunately, improper upkeep can diminish their protective qualities. The ballistic panels inside the vest are made of strong, protective fibers that can stop a bullet — unless the material is compromised.

For bulletproof vests, you absolutely cannot get the ballistic panels wet. Liquid of any kind deteriorates the protective materials, potentially leaving soldiers and police vulnerable. That doesn't mean you can't wash your vest with water, but it will take some patience and attention to detail to ensure that your bulletproof panels aren't damaged.

#### **No Quick Fixes**

Washing gear by hand is tedious and time-consuming, but 100% necessary to protect the ballistic panels in body armor. While your ballistic panels should be protected by a waterproof barrier, any small rip or hole will compromise them. To be safe, you should remove each ballistic panel before washing the vest with liquid. You'll need to hang the vest to dry and ensure that the vest is completely dry before returning the panels to the vest.

While you might be tempted to spray your ballistic gear with Lysol or Febreeze just to get rid of the smell, aerosols are liquids and therefore damage your protective equipment just as much as water. Always avoid these "quick fixes" to keep your ballistic gear fully functional.





# **K9 BITE SUITS**

Bite suits are excellent for protecting you while you train military and police dogs — but they also quickly get soiled with sweat and slobber. While bite suits can be machine washed, they must be hung up to dry, which can take hours. Most K9 units don't have a suit for each trainer, so often there isn't time to wash and dry them in between shifts. That leaves second-shift trainers to work in someone else's sweat, odor and germs.

# **TURNOUT GEAR**

While turnout gear can be machine washed, you can't simply use a clothes washer when it gets dirty. Firefighters encounter dangerous chemicals at work, so you run the risk of spreading these contaminants onto normal clothes and your skin. Your firehouse will need to invest in a washing machine that will only be used on turnout gear and a separate washer for station uniforms and other clothing items.

Boots, helmets, and other pieces of your turnout suit, however, can't just be tossed in with the wash. You should wash off as much debris and soot as possible at the scene, but then you'll need to carefully disassemble your protective equipment, and carefully handwash them to prevent contact with your skin. Also, check your detergents and cleaners to make sure they don't degrade the protective properties of your gear.



# **INTRODUCING: DECON ZONE**

Whether you're a firefighter, EMT, soldier, or police officer, you deserve safer, more efficient sanitizing systems. With **Decon Zone**, you can say goodbye to tedious upkeep protocols, smelly and uncomfortable gear, and the expense of frequently replacing gear.

# THE POWER OF OZONE

Ozone is a naturally-occurring gas that protects us in more ways than one. In the atmosphere, the ozone layer keeps harmful UV rays from reaching Earth. When generated for sanitizing purposes, ozone molecules attack and destroy bacteria, viruses, and molds while also neutralizing odors in a completely dry sanitizing cycle.

Ozone molecules are small enough to penetrate the fibers and materials in your gear to kill germs, even in those hard-to-reach places. It's 99% effective at killing dangerous pathogens, creating a safer work environment for your unit.





# **OUR PROVEN PROCESS**

Inside the Decon Zone chamber, we unleash the power of ozone to significantly reduce bacteria, viruses, and mold that live on your gear — so you never need to worry about smelly gear or spreading infections. We don't rely on harsh chemicals, liquids, or aerosol fragrances to sanitize gear, so your ballistic and protective gear will last longer.

Decon Zone is not only easy to use, but it's also more efficient than handwashing. You can effectively sanitize several pieces of gear and equipment simultaneously and still expect the same result. Simply toss your soiled gear into the machine, turn it on, and return to fresh, safe-to-use gear in just 32 minutes.

In addition to the Decon Zone machine, we offer a large-capacity Decon Zone trailer that can be hitched to a truck. This high-volume mobile sanitizing solution can be operated while in motion.



Ozone is a more powerful antimicrobial agent than chlorine bleach and iodine, so MRSA, staph, and other germs won't stand a chance.

#### Extend the Life of Your Gear

We use ozone rather than liquid detergents, so your gear remains intact and safe to use—saving your budget, and maybe even your life.

#### Feel More Comfortable

"Once we got the Decon Zone it was really great. Nobody wants to hop out of the shower and put on dirty clothes. You want clean clothes the same way we want to put on clean equipment."

Barton Gonzales, Protective Service Officer, USAF

Our system will leave your gear smelling fresh, so putting on your gear will never be unpleasant.





Two sets of FireDex Fire Turn Out Gear were sent out to Decon Zone Sanitization for sample decontamination. A ten year accelerated test was run on the gear to determine detrimental effect, if any, on the gear.



There was no discernable or visible damage to the gear and the gear was decontaminated. We carried out a thorough visible check with the Liner/Outer-Shell separated. FireDex's conclusion is that the Decon Zone Sanitizing System had no detrimental effect to the Fire Turn Out Gear or its protective qualities."

# **Tony Moore**

FireDex

# START SANITIZING WITH DECON ZONE

Are you ready for safer, fresher, and longer-lasting gear? Decon Zone is here to help. We know that budgets are tight, so we're happy to provide you with resources that will help you lobby for funding to purchase the equipment.

"Instead of just sending emails up the chain to sell your leadership on how it's worth it, show them data, statistics, and percentages about the advantages of purchasing Decon Zone in the long run."

**Barton Gonzales** 

Protection Service Officer, USAF

Our team is here to answer all of your questions and support your sanitation efforts. Reach out to:

**Mark Eades** 

meades@globalo3.com

Please include the following in your email:

- Name of Unit/Department
- Contact Information
- Number of Decon Zone Machines
- Number of Decon Zone Trailers

**LEARN MORE** 







# Resources:

How a K9 Unit Overcame Its Sanitation Problem
Police & Military: How to Safely Wash & Sanitize Your Gear
Protect First Responders from Their Own Gear
How To Prevent MRSA Infections
What is Ozone?



