

The World's Most Powerful Decontamination Solution

PRODUCT
GUIDE
DOWNLOAD

- D7 effectively neutralises up to 99.999% of all bacteria, viruses, spores, molds, and chemical & biological hazards.
- The Formula is non-flammable, non-corrosive, contains zero VOCs, and is biodegradable.
- D7 eliminates both vegetative and non-vegetative spores, by chemically cleaving spore walls, and neutralising mycotoxins.
- Easily applied as a foam, fog, mist or direct spray, mopped, or even as a detergent.
- Used by FBI, CIA, Secret Service, Dept. of Homeland Security, U.S. EPA, FEMA, and Various large scale organisations.
- Leaves a non-toxic pH neutral residual barrier to prevent re-contamination.

hunter

This is **work smart wear.**



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About Hunter

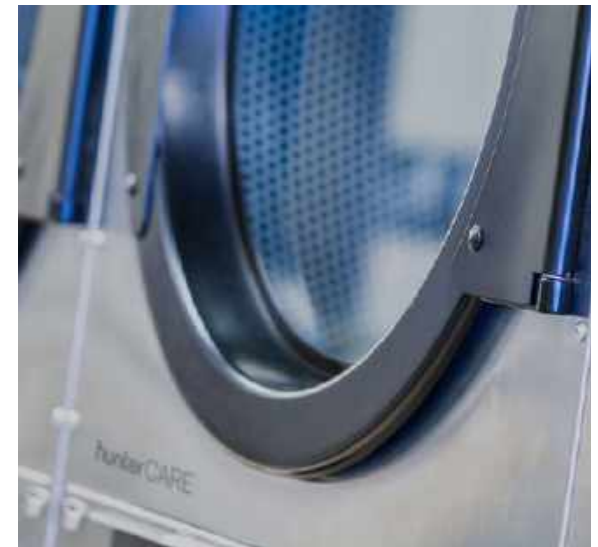
The Fabric of Hunter

Hunter began as a bespoke tailoring specialist in 1936, but has evolved into a pioneer in the creation and management of technology-driven professional clothing and care and maintenance solutions. Over the years our professional clothing and PPE designs created through **HunterONE®**, have changed how businesses in a wide range of sectors look, but the efficiency of **HunterCARE®** and **HunterPAC®** have transformed the way many more operate.

HunterCARE® is our duty of care platform for the care, maintenance and decontamination of technical PPE. HunterPAC® is our dynamic ordering platform for the provision of managed services.

Both of these propriety platforms are multi-award winning Nationally. Hunter own and operate specialised laundry and decontamination centres in both the UK and Ireland. Our HunterCARE® centres provide a range of services including inspection, laundry, repair and decontamination all managed by our professionally trained team.

Hunter is the exclusive UK and Ireland distributor of D7 in our niche sectors. D7 is a key part of our laundry and decontamination process, as you will learn through this presentation, D7 offers a level of protection second to none and its broad range of applications has brought D7 to the forefront in the battle against COVID-19.



Our goal is to connect clever design with innovative technology to make businesses smarter on every level with **work smart wear**.

Our Awards

INSTITUTE OF DIRECTORS AWARDS

- Simon Hunter – UK Overall Director of the Year 2015
- Simon Hunter – UK Family Business Director of the Year 2015 & 2012
- Simon Hunter – NI Family Business Director of the Year 2015 & 2012

AER LINGUS VISCOUNT AWARD

- Innovator of the Year 2016 – Pall Mall, London

PROFESSIONAL CLOTHING AWARDS

- Long Service to Textiles Award 2019
- Best Business Manager 2018
- Best Managed Major Contract 2018
- Best IT Innovation and Website of the Year 2017
- Dublin Fire Brigade Best Bespoke Uniform for PPE
- Lifetime Achievement Award 2016 for Director, William Francis Graham Hunter J.P
- Simon Hunter – Best Business Manager of the Year 2015 (nominated by UK Border Force)
- UK Border Force Best Managed Major Contract of the Year 2015
- UK Border Force Best Bespoke Workwear Uniform Design of the Year 2015
- Highly Commended Best Bespoke Workwear Design 2014 (nominated by An Post)



Product Overview

Let us introduce you to D7 The World's Most Powerful Decontamination Solution Widely used across the world.

- No specialised training is required.
- D7 has a 5 Year shelf life.
- The unique wicking action of D7 draws contaminants from the most porous of surfaces truly neutralising and decontaminating that surface.
- Once applied D7 carries on working for 8 hours reducing the possibility of bacterial and viral contamination and regrowth.
- D7 is classified Eco friendly and carries no environmental impact status.
- D7 offers a 5+ Log kill UK (99.999%) 7+ log kill USA (99.99999%).
- D7 works on both hard and porous surfaces.
- D7 has a unique foaming action which allows the user to see where it has been applied.
- D7 uses positively charged surfactants in the chemistry & is effective even on damp surfaces.
- D7 is effective in a broad spectrum of temperature and humidity conditions.
- D7 can be applied using Fogging – Foaming – Mop & bucket - sprayed and wiped methods.
- D7 can be used in food processing and preparation areas such as kitchens and restaurants.
- D7 is classified Non- hazardous which is essential for storage and transportation.



The Use of D7 to Disinfect Areas Potentially Contaminated with Coronavirus

D7 is an aqueous-based disinfectant that can rapidly neutralize highly toxic chemical and biological materials. The formulation:

- is effective for killing pathogenic organisms including vegetative and spore-forming bacteria, viruses, biofilms, and fungi and for neutralizing highly toxic chemicals;
- utilises very mild ingredients that gives it very low toxicity and corrosive properties; can be deployed as a foam, liquid spray, or fog on a wide variety of materials and surfaces.
- can be deployed as a foam, liquid spray, or fog on a wide variety of materials and surfaces.

D7 contains surfactants, mild solvents, inorganic salts, a low concentration of hydrogen peroxide (~3.5%), a hydrogen peroxide activator, and water. The surfactants soften the cell walls of pathogens which allows the activated peroxide to penetrate to the interior for complete kill. This unique combination of mild ingredients works synergistically to kill persistent biological pathogens which has been demonstrated in testing at numerous government and private facilities and in many field applications – outperforming formulations that contain much harsher chemicals.

D7 was originally developed to decontaminate chemical and biological warfare agents for military and homeland security applications. D7 has high efficacy against pathogens of concern to human health, and in agriculture and food processing such as *Listeria*, *E. coli*, *Salmonella*, the African Swine Fever virus, the Porcine Epidemic Diarrhea Virus, *Salmonella* and *E. coli* biofilms, Avian Influenza, and *Bacillus* spores.

An independent study by Kansas university found D7 the most effective Decontaminate in wiping out corona virus, H1N1 and Bovine virus's.

D7 can effectively inactivate coronaviruses. In tests at Kansas State University, D7 was shown to rapidly and completely inactivate a $>5\text{Log}_{10}$ concentration of Bovine Coronavirus (BCV) with a one minute contact time even in the presence of a 50% organic loading¹. Note that in the report for these tests referenced below, D7 is referred to by its development name of DF-200. Based on these results, D7 can effectively be used to disinfect facilities such as hospitals, railway stations, and airports against coronaviruses and other pathogenic organisms – even in areas with high organic or soil loads.

D7 can be easily deployed. It can be dispersed as a highly stable foam through existing foam generating equipment. When deployed as a foam, it clings to vertical and downward facing surfaces for 30 minutes or more to achieve long contact times against persistent toxic materials including biofilms. It can also be deployed as a liquid spray either through large-scale sprayers or from a hand-held spray can (i.e., BDAS+) which enables rapid deployment within seconds. D7 can also be deployed as a fog (or mist) from aerosol-generating devices primarily for interior decontamination – which is the ideal deployment method for large spaces potentially contaminated with coronaviruses. Once D7 comes into contact with bacteria or viruses either in the air or on surfaces, these pathogens are quickly killed or inactivated reducing the risk of infections to people in the area.



D7 being used in Wuhan, China 2019.



D7 3 Part Solutions.

The solution, developed for the U.S. Department of Defense, is available in four configurations to cover a variety of decontamination needs.

The BDAS+ handheld unit

The BDAS+ handheld unit automatically mixes and delivers the D7 decontamination solution to break down contaminants including soot and formaldehyde, as well as bacteria, viruses and narcotics. This ready-to-use handheld unit automatically mixes and delivers the D7 solution within seconds.

The BDAS+ unit provides the detergent, neutralisation agent and accelerant in a single package and mixes them for one-step application. In addition to enabling rapid response, the ready-to-use unit eliminates the potential for human error because the components are mixed for you. Simply pull the yellow safety tab from the nozzle, point it at the surface to be decontaminated, then spray and wait seven minutes for the solution to neutralise the contaminants.



Bulk Liquid and D7 Laundry with HunterCare®

The bulk D7 solution comes divided into three parts: the detergent, the neutralizing agent and an accelerator. Once mixed, these can be applied with a foaming apparatus, low-pressure sprayer, mop or soaking system. Foaming turnout gear on the fireground is a good way to begin removing carcinogens.

After on scene decontamination the next step is laundering PPE and uniforms back at the station to eliminate remaining surface toxins and those that may have been absorbed into the fabric.

Unlike chlorine bleach, D7 Laundry is colour-fast, biodegradable and will not degrade fabrics, and it has been tested and certified safe for use on PPE by NFPA standards, including fabrics, tape and liners.

For ambulances, fogging the patient care compartment with bulk D7 can be especially effective to prevent the spread of infectious diseases. This process involves dispersing a fine mist of the solution and closing all vehicle doors and letting it soak to kill anything that has become an airborne pathogen.

"DF200 consistently tested more effective even in soil load conditions over other chemistries involved in the study."

Kansas State University 2006 study on Chemical Inactivations of Viruses.



Premixed measuring dispenser bottles with Pump

Hunter also offers a 2 x 1 litre dispenser bottle with pump that offers easy storage, instant use and accurate Measurements offered by the pumping system.

Safe for Frequent Use

Historically, decontaminants have been highly toxic and highly corrosive. For example, while chlorine and bleach solutions also neutralize many biological and chemical agents, the runoff of these solutions is still hazardous. Also, bleach itself is highly corrosive and can cause damage to many surfaces and fabrics.

Alcohol and ammonia present similar inhalation hazards and potential for damage. D7 was developed to provide an effective decontaminant solution with low toxicity and low corrosive action that is safe for use around people and animals, safe for the environment and safe for equipment.

D7 can eliminate most pathogens – without harmful fumes like bleach – and neutralize carcinogens by breaking them down into non-toxic substances.

It's also used by hazmat teams to decontaminate meth labs and crime scenes. The formula is safe to apply on a variety of surfaces, including plastics and metals, and it creates no noxious fumes or odours.

Although D7 complies with environmental regulations, D7 is not FDA-approved for use on your skin. Users should wear gloves and goggles, plus a mask and protective clothing when applying the solution in close quarters.



D7 - What it kills

D7™ NEUTRALIZES A WIDE RANGE OF BIOLOGICAL AND CHEMICAL THREATS



CHEMICAL & BIOLOGICAL WEAPONS

- Bacillus Anthracis (Anthrax)
- Botulinum (Toxin)
- GA (Tabun) Nerve Agent

- GB (Sarin) Nerve Agent
- GD (Soman) Nerve Agent
- Lewisite (Blister)

- Mustard Gas (Blister)
- Ricin (Toxin)
- VX Nerve Agent

BIOLOGICAL ORGANISMS

- Aspergillus niger
- Bird Flu H5N1
- Brevibacterium ammoniagenes
- Burkholderia cepacia
- Campylobacter jejuni
- Candida albicans
- Clostridium difficile
- Corynebacterium ammoniagenes
- Enterobacter aerogenes
- Enterobacter cloacae
- Enterobacteriaceae (with extended beta Lactamase resistance)
- Entococcus faecalis
- Entococcus faecium (Vancomycin resistant)
- Escherichia coli
- Escherichia coli (antibiotic resistant)
- Escherichia coli 0157:H7

- Hantavirus
- Hepatitis B Virus
- Hepatitis C Virus
- Herpes Simplex Type 1
- Herpes Simplex Type 2
- HIV/AIDS
- Human Coronavirus
- Legionella pneumophila
- Influenza A/Brazil Virus, H1N1
- Klebsiella pneumonia
- Klebsiella pneumonia (antibiotic resistance)
- Listeria monocytogenes
- Norovirus Feline
- Norovirus Murine
- Proteus mirabilis
- Proteus vulgaris
- Pseudomonas aeruginosa

- Pseudomonas aeruginosa (antibiotic resistant)
- Respiratory syncytia virus
- Salmonella enteric
- Salmonella typhi
- SARS
- Serratia marcescens
- Shigella dysenteriae
- Shigella sonnei
- Staphylococcus aureus
- Staphylococcus aureus (antibiotic resistant)
- Staphylococcus aureus (Methicillin resistant)(MRSA)
- Staphylococcus pyogenes
- Trichophyton metagrophytes
- Tuberculosis
- Vaccinia virus
- Vibrio cholera

CHEMICALS

- Q-Alkyl Phosphonofluoridates, such as Sarin and Soman
- Q-Alkyl Phosphonofluoridates, such as Tabun
- O-Alkyl, S-2-Dialkyl Aminoethyl Alkylphosphonothiolates and Corresponding Alkylated or Protonated Salts, such as VX Mustard Compounds, Including 2-Chloroethyl chloromethyl sulfide, Bis (2-Chloromethyl) sulfide, Bis (2-Chloromethyl) Methane, 1,2-Bis (2-Chloromethylthio) Ethane, 1,3 Bis (2-Chloroethylthio)-N-Propane, 1,4 Bis (2-Chloroethylthio)-N-Butane, 1,5-Bis (2-Chloroethylthio)-N-Pentane, and Bis (2-Chloroethylthiomethyl) Ether
- Methylamine, Saxitoxin
- Lewisites including 2-Chlorovinyl dichloroarsine, Bis (2-Chlorovinyl) Chloroarsine, Tris (2-Chlorovinyl), Arsine, Bis (2-Chloroethyl) Ethylamine, and Bis (2-Chloroethyl)

- Alkyl Phosphonyldifluoride and Alkyl Phosphorites
- Chlorosarin
- Chlorosoman
- Amiton, 1,1,3,3,3, -Pentafluoro-2-(Trifluoromethyl) -1- Propene, 3-Quinuclidinyl Benzilate
- Methylphosphonyl Dichloride
- Dimethyl Methylphosphonate
- Dialkyl Phosphoramidic Dihalides
- Dialkyl Phosphoramidates
- Arsenic Trichloride
- Diphenyl Hydroxyacetic Acid
- Quinuclidin-3-ol
- Dialkyl Aminoethyl-2-Chlorides
- Dialkyl Aminoethan-2-ols And Dialkyl Aminoethane -2-Thiols

- Thiodiglycols
- Pinacolyl Alcohols
- Phosgene
- Cyanogen and Thionyl Chloride
- Hydrogen Cyanide and Chloropicrin
- Phosphorous Oxychloride
- Phosphorous Trichloride, Phosphorous Pentachloride and Alkyl Phosphites
- Sulfur Minochloride, Sulfur Dichloride

Some of the noteworthy uses of D7

Used by EPA after Hurricane Katrina to clean commercial buildings and homes.

Decontamination of the Hart Senate Building, Us Post Office in Washington DC, and NBA Studios in New York City following 9/11 Anthrax attacks.

Remediation of the sidewalks and public areas after the Boston Marathon Bombing.

Clean up of inside the Dallas Ebola Apartment and surrounding common areas.

Staged in the Middle East as part of Operation Iraqi Freedom.

An earlier version of the technology was used to successfully remediate portions of the US Capitol Hill office buildings in New York City following anthrax incidents of October 2001.



Thank you for reading

Contact us today for a quote.
Data sheets available upon request.
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