

**VEHICLE ANTI BACTERIAL TECHNOLOGY**  
AIR GUARD DISINFECTS, DEODORIZES, AND CLEANS AIR-CON SYSTEMS



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## Air Guard The Leading Brand Of Vehicle Disinfection Technology

Since 2021, Air Guard professional-grade disinfection has serviced more than 2 million vehicles every year.

Our outstanding quality and efficacy have won the praise and earned the trust of our many global customers.



## About Air Guard

Air Guard is headquartered in Taoyuan City, Taiwan. Our company consists of biotech professionals with more than 40 years of experience in research and development of aerosolizing technologies. We are a brand that focuses on disinfection in everyday life.

Combining strong R&D with superior global marketing experience, our fog machines hold the top three worldwide market share positions. With the goal of expanding our global businesses, we continue to do research and development in the area of new germicidal aerosol products.

Looking to the future, Air Guard will continue to improve on our already solid brand foundation with the focus on our corporate mission of improving living environments all over the world and delivering greater value to our customers.





## Automotive Application

### Most Advance Nano Grade Antibacterial And Air Conditioning Cleaning Technology

Air Guard AG-850 is compact, easy to move and provides high output with low consumption and is used together with FLE-05G disinfectant. The fogging process both disinfects the car and maintains the vehicle's air-conditioning system ensuring passenger health and safety. It also won't harm the vehicle's interior, electronics, leather, wooden veneer, fabric, paint, etc.

## Changing Filter Isn't Enough

Air conditioners over time build up dirt in the ducts, on filters and radiators etc. This will lower the heat exchange rate and will lower the cooling efficiency. The build-up also results in bacteria and mold which will create bad odors and can be harmful to the health of both drivers and passengers. Routine cleaning of air conditioning systems with Air Guard is necessary to prevent this problem.

Air Guard treatment cleans deep within air-conditioning systems effectively reducing clogs and dust which would otherwise cause bacteria and mold to breed. By producing an anti-bacterial film on surfaces, it further maintains cooling efficiency thereby reducing fuel consumption, and protecting evaporators and compressors to extend the life of the air conditioning system. We suggest customers have the service done regularly.



## Anti-Bacterial Technology

Air Guard AG-850 uses only our proprietary FLE-05G disinfectant

FLE-05G is created using a cutting-edge manufacturing process to produce an antibacterial formulation suitable for undergoing high temperature gasification without losing any active ingredients. It doesn't contain chloride and won't produce harmful gases such as chlorine, trihalomethane or any other harmful gases even when in contact with organic materials.

Instant high-temperature gasification produces nano-grade dry fog particles that will cover entire areas including hard-to-reach spaces. The antibacterial fog particles expand and stay afloat for more than 60 minutes, continuously disinfecting killing viruses, bacteria, mold, and bad odor. It also leaves a long-lasting antibacterial film on surfaces further extending the duration of the disinfection process.

## Protecting What Matters Most Air Guard Disinfects, Deodorizes, And Cleans Air-Con Systems



Kills virus, bacteria, mould and fungi



Reduces the risk of influenza



Neutralizes bad odors



Improves air-conditioning efficiency



No rinse or wipe required

## Odor Removal Technologies

FLE-G is formulated with several types of plant phytoncides that have high deodorizing ability. The interaction between ingredients enhances the deodorant effect.



(1) Chemical reaction: The odorous substance and the deodorizing ingredients undergo a chemical reaction, which becomes a stable odorless substance.



(2) Neutralizing and covering effect: It has the function of neutralizing and eliminating bad smells. After being mixed with odor from kitchen waste, smoke, sewage, and sweat, it can neutralize and eliminate unpleasant odors.



(3) Soothing effect: After deodorization, the aroma of plant phytoncide has the function of refreshing the air.

Air Guard odor removal technology is our special method to spray FLE-G inside the vehicle to not only remove odor, formaldehyde, and other chemical causing atopy and asthma, but also emit pleasant fragrance in the vehicle. This allows the driver and passenger to enjoy the trip.



The AG-850 series is an easy-to-operate, lightweight, portable antibacterial vaporizer suitable for use in all kinds of vehicles. When paired with Air Guard FLE-G disinfectant, it produces a 3D nano-fog which forms a long-lasting protective film completely covering irregular surfaces and even coats individual fibers of fabrics. This allows for prolonged and enhanced sanitizing.

### Machine Features

- Quick 2-minute warm-up time
- Built-in Timer
- When manually pushing button on the machine, fogs for 30 seconds
- When operated by wireless controller, fogs for 5 minutes
- Detachable power cord

### Accessories

Wireless Controller



### Recommend Usage

Vehicle Type	Dimension	Volume	Fogging Time
	L 3.8 x W 1.6 x H 1.3 m	4,300 L	30 Sec
	L 7.8 x W 2.3 x H 3 m	24,000 L	90 Sec
	L 12 x W 2.5 x H 3.4 m	55,000 L	180 Sec



## AG-50 Battery Powered – Automotive Interior Air Purified Machine

The built-in battery is applicable for location(s) without power outlets and is suitable for any automotive interior for quick antibacterial treatment. Using with FLE-G antibacterial fluid, produce 3D nano fog which can cover all including blind spots, and result in a protective film on the object's surface.

### Machine Features

- No preheating required, instant use after turning on power.
- With the battery fully charged, it can use for approximately 12 minutes for full output and can disinfect about 24 normal-size vehicles.
- By pressing the button on the machine once, it will work for 30 seconds, making it very easy to complete a vehicle disinfection process.
- By operating the machine through wireless control, you can easily press a button to output continuously and press the button again to stop at any time.

### Accessories

Wireless Controller



### Recommend Usage

Vehicle Type	Dimension	Volume	Fogging Time
	L 3.8 x W 1.6 x H 1.3 m	4,300 L	30 Sec
	L 7.8 x W 2.3 x H 3 m	24,000 L	90 Sec
	L 12 x W 2.5 x H 3.4 m	55,000 L	180 Sec

After use, please turn off the power and connect the charging cable to maintain the battery in a fully charged state, preserve the health of the battery, and ensure it is ready for next time use.

## Application Features



The Air Guard antibacterial fog nano-grade ultra-fine particles collide with floating respiratory aerosols and are absorbed thereby inactivating both bacteria and viruses. The fogging process also eliminates bad odors.



Air Guard is an industry leader with over 40 years of manufacturing experience. The machine's vaporization particle size is  $<0.5 \mu\text{m}$  (1/10 the size of most other aerosol generators on the market). This allows for low noise, and ultra-dry fogging without any unwanted moisture.



Even without any airflow or circulation, Brownian motion causes the fog to completely fill the treatment area and stay in the air for more than 60 minutes, enhances the overall antibacterial effect.



The process is not harmful to any materials, electronic equipment, leather, wood, cloth, paintings...etc.



The fog enters deep into the air-conditioning system reducing dirt, dust, bacteria and leaves an anti-fouling antibacterial protective film within the cooling system. This eliminates odors and also enhances cooling systems' efficiency saving energy and money.



Does not require the cleaning or wiping down of surfaces after fogging.



Penetrates into places that can't be reached by any other means such as gaps, dead corners, air-conditioning ducts, etc. and also forms a 90-day long-lasting antibacterial protective film on surfaces.



# FLE-G NEW GENERATION DISINFECTANT

## FLE-G Disinfectant

### Improved Sanitation Provides a Safer Environment

FLE-G disinfectant is specifically designed for Air Guard AG-850. The antibacterial fog can quickly fill large areas and also cleans deep inside air-conditioning systems. Active ingredient is an herbally based germicidal which also contains deodorant effect.

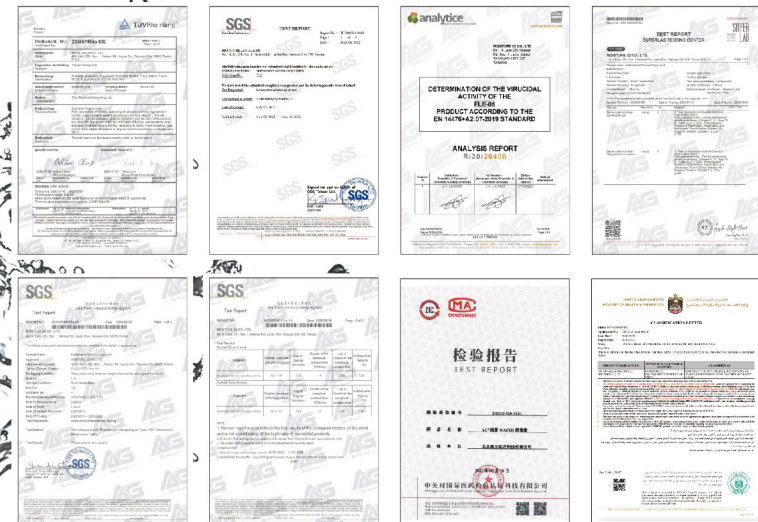
FLE-G is created using a cutting-edge manufacturing process to produce the best antibacterial fogging formulation on the market. It is the only product truly suitable for undergoing high-temperature gasification without losing any active ingredients. It doesn't contain chloride and won't produce harmful gases such as chlorine, trihalomethane or any other harmful gases even when in contact with organic materials.

Thymol and silver are the main germicidal active ingredient in our fogging solution.

Thymol is a safe natural occurring substance found inside of thyme plants and is listed by the US EPA as an effective active ingredient to kill COVID-19. It also works synergistically with other herbal antibacterial and deodorant compounds to allow us to produce the safest effective solution on the market today.

## International Certifications & Test Reports

- > US FDA registration, US National Drug Code (NDC) : 90014-003-02.
- > US EPA registration, registration number : 99654-TWN-1
- > Comply with EU ECHA Bactericidal Products Regulation (BPR).
- > Passed TUV EU REACH (SVHC) testing and does not contain harmful substances.
- > Passed TUV Toxicity Analysis Report (CMR) and does not contain carcinogenic, mutagenic or reproductive toxic substances.
- > 99.99% antibacterial eradication rate, verified by TUV, SGS and Super Lab (GLP&TAF certification).
- > Effective against human coronaviruses, verified in the French laboratory ANALYTICE® test method : EN 14476
- > Highly effective antibacterial agent, verified by the Dubai Central Laboratory Department.
- > Comply with China National Health Commission (CMA) Disinfectant Regulation
- > Passed China International Medical Inspection Certification(ZIC), hard surface disinfection, air disinfection, metal corrosion test (non-corrosive), acute oral toxicity test (non-toxic), acute inhalation toxicity test(non-toxic), skin irritation test(no stimulation), and many other safety tests.





## AG VS. Common Vehicle Disinfection Methods

Product	FLE-G Disinfectant	Alcohol	Hypochlorous Acid	Ozone	UV	Steam Cleaner	Photocatalyst
Active Ingredient	Thymol	C2H5OH(Ethanol)	HClO	O3	UV rays wavelengths 200~280nm	Steam	Titanium Dioxide(TiO2)
Equipment	Air Guard AG-850 vaporizer	Spray bottle	Spray bottle/ ULV cold fogger/ Ultrasonic vaporizer	Ozone machine	UV Lights and Lamps	Steam cleaner machine	Spraying equipment
Mode of Action	Phenols destroy lipids and proteins in bacteria and viruses, making them inactive.	Alcohol(Ethanol) denatures proteins and dehydrates cells	Strong oxidant, destroying bacterial membranes and virions		High-energy UV irradiation destroys the genetic material of bacteria and viruses	High temperature water vapor kills bacteria	Titanium dioxide inactivates proteins in bacteria and viruses.
Range of Disinfection	Bacteria, enveloped viruses (coronavirus, Influenza virus),non-enveloped virus (enterovirus,norovirus)	Bacteria, enveloped viruses (coronavirus, Influenza viruses)	Bacteria, enveloped viruses (coronavirus, influenza virus), non- enveloped virus (enterovirus, norovirus)				
Duration of Action	15 Mins	10~15 Mins, Depending on the size of vehicle	10~15 Mins, Depending on the size of vehicle	30~60 Mins	10~15 Mins, Depending on the size of vehicle	30 Mins	30~60 Mins
Human Contact Safety	★★★★	★★★★	★★	★	★	★★★★	★★★★
Corrosive Against Objects	None	It is possible to damage leather upholstery in vehicles	Concentrations above 200ppm might corrode metals	Corrosive to metal, will deteriorate plastic and rubber	It is possible to cause plastic parts aging and brittleness	None	It is possible to damage organic substances so cannot be used for leather and high-grade textiles.
Odor	Pleasant herbal scent	Pungent odor	Slight chlorine smell	Pungent odor	None	None	None
Deodorizing Effect	★★★★	★	★★	★★★★	★	★	★★★★
Practicality	Easy-to-operate, time saving, no rinsing or wiping required. 3D sanitizing fog penetrates into hard to reach spaces and covers irregular surfaces.	It is flammable, so has safety concerns and can't treat hard to reach spaces and surfaces in the vehicle. Inside air conditioning system cannot be cleaned. Not effective against non-enveloped viruses (such as enteroviruses).	It is not suitable for use in thermal fog machines, as it will generate harmful substances such as chlorine. Further wiping treatment is required in vehicles.	High concentration is harmful to humans. Using for prolonged periods of time can cause rubber aging and metal corrosion.	The irradiation time and distance will affect the efficacy of disinfection which results in an unstable sterilization effect. Using for prolonged periods of time might cause plastic parts to age and become brittle.	The steam might cause parts to rust and electric system failures in the vehicles.	Application very time consuming and also needs to be activated by specific ultraviolet rays. Therefore, shadows can easily lead to dead spots of disinfection.

Air Guard Disinfectant

FLE-05G

FOG LIQUID

500ml/17.6 fl.oz.