

FLD/FLE Air Guard Sanitiser Solution

1. US EPA and Taiwan CDC approved antibacterial ingredient – Isopropyl Methylphenol (IPMP).
2. Effectiveness proven by Super Lab (GLP&TAF accredited).
3. Inhibits growth of multiple types of bacteria and mould.
4. Paired with Air Guard vaporizer, antibacterial fog spreads everywhere, incl corners and cracks.
5. The antibacterial fog forms a protective layer on objects prolonging the antibacterial effect.
6. Non-toxic and non-irritating formula.
7. Phytoncide & fruity fragrance neutralizes odours effectively.

Air Guard FLD and FLE sanitiser is all-natural and when vapourised with an Air Guard fogger, creates a lasting barrier (up to 14 days) which can kill pathogens on contact, denaturing the virus proteins using a process called lysis. It has been created specifically for use in Air Guard thermal fogging machines by a biotech company.

The antiviral agent is incapable of binding to human cells but is effective against the influenza virus as well as bacteria, incl. general pneumonia, and multiple other viruses and moulds.

The active antiviral ingredient in FLD is Isopropyl Methylphenol (IPMP), an isomer of Thymol which is listed as an **effective disinfectant for use against SARS-CoV-2** in the US EPA system. <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

Thymol has been used for centuries in folk-medicine and through the 20th century in anti-septic mouthwash, and is one of the standard antiseptics used today in hospitals and homes. It is safe for the human body and effective against viruses like Covid-19 as well as mould and bacteria.

Is it safe?

Yes, 100% when used as directed. The fog produced will fill a space and settle over surfaces and into nooks and crannies. The treatment is non-toxic to humans and animals, and none of the ingredients are known or suspected carcinogens.

Occasional incidental exposure to the Air Guard fog may result in extremely low levels of the product intercepted by the human body (settling on food items, or in the air), but because the molecules are so fine, they are easily metabolized by the liver and are not harmful to human health.

The Air Guard FLD/FLE treatment is friendly to the environment, and will decompose and disappear within weeks after use without leaving any harmful residue, oxidation or damaging sensitive equipment.

(The fluid does contain a small percentage of water (15%), so in a high-humidity area it may affect metal surfaces in high concentrations if it doesn't dry out)

This anti-bacterial effect lasts approximately 1 to 4 weeks (depending on the environment and foot-traffic)

We recommend using **caution** when treating areas where young children and pets are likely to be after treatment, as they may lick or chew on furniture or toys with surface residue. We also recommend you take precautions and avoid breathing the air in the area during fogging treatment, and don't reenter the treated area too soon after fogging.

Directions for use:

- Do not treat a room while people or pets are present.
- Cover or remove food, tableware and fish tanks etc
- Wash any food, vegetables or fruit that may have been exposed before eating ^{*1}
- Allow the fog to settle and/or clear before re-entering the room (say 30 minutes). The vapour can be slightly irritating to the throat and if you notice irritation open windows and leave the room until it has cleared properly.
- Ventilate the room after treatment is complete to clear remaining vapour
- Do NOT mix FLD fluid with any other disinfectants or chemicals as it will degrade performance and may be dangerous to do so.

**1 Especially in an environment that is treated daily (i.e. supermarkets) the accumulated build-up on fruit and vegetables may be significant and items should be washed before consuming.*

Calculate the room volume (roughly +/- 10%) to determine the duration of fogging required for Air Guard treatment.

Room length x width x ceiling height (in meters) = volume cubic meters.

e.g. 5 x 6 meters with a 2.4mtr ceiling =72 cubic meters

AG-20 will fill a 28 cubic meter space in 1 minute, 84 cubic meters in 3 minutes. An elevator would take about 25 seconds.

AG-800 can fill a 240 cubic meter classroom in about ten minutes, or a small 35 cubic meter office in about 70 seconds (say 1 minute) or a large office in 2 minutes... If disinfecting a car with AG-20 or 800, turn the air conditioner to recycle and use for 30 seconds at a time. An elevator would take about 25 seconds.

AG-1500 will fill a 240 cubic meter classroom in 3 minutes, or a small 35 cubic meter office in 10 seconds and is suitable for up to 2500~3000 cubic meter areas, taking about 10 minutes to fill 1000 cubic meters, or about 3~4 seconds for an average elevator.

AG-3000 will fill a 240 cubic meter classroom in 1 minute, and about 1500 cubic meters in just over 5 minutes

Rough rule of thumb:

The AG-800 and AG-20 produce about 30 cubic meters in a minute (.5 cubic mtr of smoke per second)

The AG-1500 output is 80 cubic meters per minute

AG-3000 about 260 cubic meters per minute

For our example room: 72 cubic meters (5 x 6 meters with a 2.4mtr ceiling)

AG-800/AG-20 72 / .5 seconds = 144 seconds (2.4 minutes)

AG-1500 72 / 1.5 seconds = 48 seconds

AG-3000 72 / 5 seconds = 15 seconds

IMPORTANT NOTES:

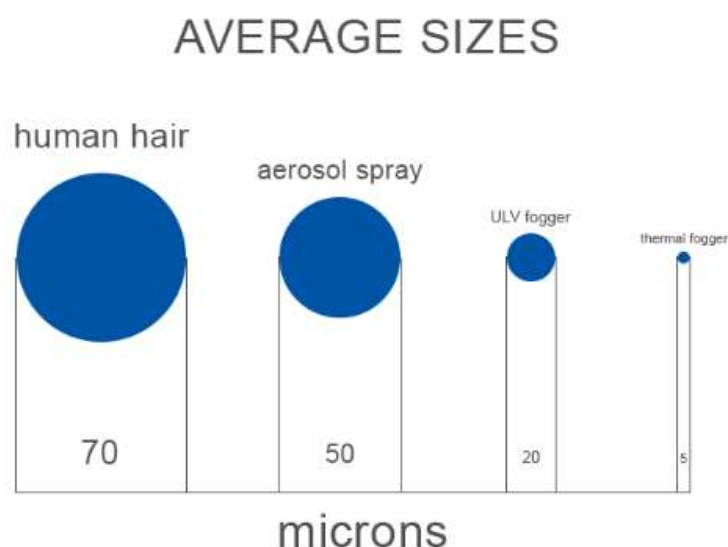
- 1) **The fog can set off smoke detector fire alarms.** They don't produce heat, but smoke detectors will usually pick them up so check your system as it is costly and annoying for everyone if the fire brigade gets a callout.
- 2) The Air Guard sanitising fog, when used as directed, is harmless to humans and animals and the amount ingested via incidental exposure is not harmful to human health, but always take precautions to avoid inhalation and unnecessary exposure.
- 3) As with the operation of any fog machine, also bear in mind oxygen is displaced by fog, and carbon dioxide and carbon monoxide may be produced during vaporisation. We recommend you open windows and ventilate any room or premises after treatment has settled.
- 4) Never mix any other products with the FLD product. It could result in reduced effectiveness, and could produce toxic or damaging vapour or have other unintended consequences.

Why Air Guard?

The Air Guard machines combined with FLD anti-bacterial sanitising fluid process is one of the most effective treatments available in the world.

One significant advantage of Air Guard fog over other types of thermal and ULV foggers is that the sanitiser molecules produced are extremely fine (<2 micron), and according to the manufacturer, can actively deal with the virus in the air. Also, the fog penetrates into nooks and crannies that larger droplet sprayers (e.g. ULV) can't.

The fine particle size combined with the unique natural disinfectant are an extremely effective and safe indoor anti-microbial fog system



Also of note, most sanitising disinfectants in the market currently are not heat tolerant.

If you vaporise them in an Air Guard, (or any smoke machine primarily intended for the entertainment market) at high temperature, they will lose their antibacterial effect and/or will thermally decompose (they burn).

Further, when heated, they can produce toxic nitrogen oxides (NO_x) and chlorides (Cl₂), which are both harmful to the environment and humans and not desirable.

In fact, any fluids containing Hydrogen peroxide, Quaternary ammonium, Hypochlorous acid and/or Sodium hypochlorite (HClO) (i.e. most Antibacterial formulae) can't be heated at all without reducing efficacy.

Disinfectant applied by wiping over surfaces is only effective on surfaces they are physically wiped onto. Further, because the amount of product applied to surfaces is, by comparison, large it is easy to accumulate unhealthy levels in food or water sources.

Disinfectants used in spray dispersing systems (ULV) create large particles that are very heavy, and are only effective in the range around the sprayer – in a parabolic pattern.

Handling instructions

Please refer to the MSDS for spillage, exposure and handling information for the liquid disinfectant, and instructions for accidental ingestion, personal protection and disposal. If ingested seek medical attention.

Always handle the fluid in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

If spilled: Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray.