

Frequently Asked Questions

NOTE: The Lamps can be known as Catalytic Lamps, Catalytic Fragrance Lamps, Effusion Lamps, or simply as Fragrance Lamps.

What is a Catalytic Fragrance Lamp?

History

The original Lamp technology dates back over 120 years, to when a French pharmacist discovered the catalytic combustion process, and the Lamps came to be widely used to help disinfect and purify the air in hospitals, thus cutting down on infection transmission. In the 1920's designers were commissioned to create aesthetic bottles to be offered to private consumers. The Lamps, which had previously cleansed and purified the air exclusively in an industrial setting, now came into the private home.

We have taken the original technology, tweaked and refined it over the course of the last 10 years or so, to create what we believe is the best system out there.

When the Covid-19 pandemic started taking hold, we immediately wondered whether our product could be useful, and began researching a microbiological laboratory that could do the type of testing that was needed. At the end of January 2020, we commissioned a specialist US laboratory to begin testing our Lamps specifically for their efficacy against coronavirus. In June we received the verified results in the final test report.

How does it work?

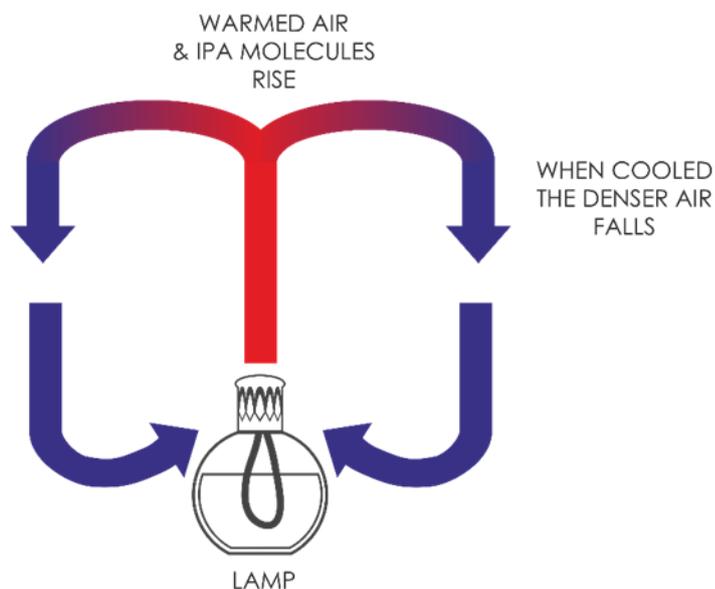
The Fragrance Lamp diffuses fragrance and purifies the air via a method of operation known as Catalytic Combustion.

The Catalytic Lamp works when the catalyst (platinum) present on the stone part of the wick assembly is heated, which creates a catalytic reaction with the Neutral Refill or Lamp Fragrance and oxygen, which is self-sustaining while there is constant fuel and oxygen supply. The liquid in the Neutral Refill or Lamp Fragrance is drawn up the cotton wick via capillary action into the porous ceramic burner head, where the catalysis takes place, oxidising some of the liquid and releasing the balance into the air (with the fragrance, if included). The heated liquid rises into the air, and through convection currents is diffused quickly throughout the surrounding air. This technology is particularly effective at ensuring the liquid is emitted in ultra-fine particles which rise quickly and distribute rapidly, far smaller than droplets produced by spray, or standard evaporation, and at a far greater rate.

How is a Fragrance Lamp different to a candle or reed diffuser?

Compared to other home fragrance products, the key thing that a Fragrance Lamp does when perfuming a room, is not just to release fragrance into the air, but also at the same time to actively destroy malodour particles. Products such as sprays, candles and diffuser simply attempt to mask background odours, but when the fragrance fades the undesirable odour will still be present. A Fragrance Lamp can actively remove the malodour. The Lamp actively purifies, cleanses and perfumes the air in a wide area. Common odours in the home produced by cooking, pets, tobacco and exercising can be safely and effectively removed by using the Lamp.

Another aspect is the ability to distribute fragrance faster and further than any of the other product formats. The catalytic combustion burner is almost like a tiny little engine actively and rapidly diffusing fragrance into the air, with the added effect of the convection current helping the fragrance to spread much more quickly through the air.



Does the Ashleigh & Burwood Fragrance Lamp really work against airborne 'bugs'?

Yes, the Ashleigh & Burwood Fragrance Lamp really does help to cleanse and purify the air. Independent tests conducted for Ashleigh & Burwood give the following results for the destruction of common household microorganisms and viruses after testing in laboratory conditions.

Allergens - the Ashleigh & Burwood Fragrance Lamp is effective against allergens including bacteria, mould spores and dust mites, with the following proven laboratory results after 30 minutes of exposure to the Fragrance Lamp emissions:

Bacteria:

E.coli - 99% destroyed after 30 minutes
S. aureus - 99% destroyed after 30 minutes
E. aerogenes - 99% destroyed after 30 minutes

Dust Mites:

D. farinae - 99% destroyed after 30 minutes.

Mould Spores:

S. chartarum - 96% destroyed after 30 minutes.

Virus:

Coronavirus – 97% inactivation of airborne virus after 30 minutes
- 60% inactivation of surface virus after 30 minutes

Unpleasant Odours - the Ashleigh & Burwood Fragrance Lamp is effective at reducing common household odours such as those from dogs, cats and food spoilage.

Dog: 80% reduction in odour after 30 minutes of exposure.

Cat: 80% reduction in odour after 30 minutes of exposure.

Food spoilage odours: 40% reduction in odour after 30 minutes of exposure.

Tobacco Smoke:

99.9% removal of tobacco smoke particles after 30 minutes.

Is the Fragrance Lamp effective against coronavirus?

We have had our Catalytic Fragrance Lamp tested in a laboratory and it has been found to destroy up to 60% of surface Parkers / RCoV-P and up 97% airborne Parkers / RCoV-P in 30 minutes. This strain of the virus was chosen as it is the most similar coronavirus to the strain of human Coronavirus currently causing the COVID-19 pandemic.

Is the Fragrance Lamp effective against all viruses?

We have only tested against Parkers / RCoV-P, however, this is a lipid-envelope virus and due to the way the virus is destroyed, scientists believe our Catalytic Fragrance Lamp will have similar effects against other lipid-envelope viruses. We do not have confirmed testing to prove this at this time though.

How does the Lamp sanitise the air?

There is more than one action which takes place which contributes to the cleansing effect.

Due to the clever design of the stone, some of the alcohol base of the Lamp Fragrance is able to pass through the catalytic system without being combusted, and this is broken into ultra fine particles and diffused rapidly through the air.

The ultra fine particles of the alcohol base Lamp Fragrance diffuse and when those tiny particles come into contact with infectious agents such as virus or bacteria, they neutralise them.

Finally, there is the natural convection caused by the heat, and consequent airflow down onto the stone. The surface operating temperature of the stone can be around 350C (around half the heat of a candle flame), which destroys virus and bacteria that come into contact with it.

How big an area does an Ashleigh & Burwood Fragrance Lamp cover when it comes to killing coronavirus?

It depends on the length of time that the Lamp is in use, plus also additional factors such as airflow. We recommend for an average size room (20m² floor size) to burn the Lamp for 25-30 minutes (and it is important not to over-use the Lamp, because the fragrance release is extremely powerful, not to mention using up the fragrance rather too quickly).

How often should I use the Fragrance Lamp to keep the air clean?

We would recommend using your Lamp for 30 minutes at a time to achieve effective cleaning of the air. We do not advise using your Lamp for longer than 45 minutes at a time as this can cause damage to the wick. If you'd like to use your Lamp for longer periods, we would recommend using the Lamp for 30 minutes, snuffing it out and leaving it to re-prime for 30 minutes before lighting again. This cycle of 30 minutes on and 30 minutes off can be repeated as frequently as you'd like, however, we wouldn't normally suggest using more than twice a day.

What is Ashleigh & Burwood Lamp Fragrance made from?

The basis of the Lamp Fragrance, and the important fuel which keeps the catalytic process working, is an alcohol called isopropyl alcohol. A very common alcohol, it is the same form of alcohol which is commonly used in hand sanitisers for example. The other ingredients are distilled water, and the fragrance compound itself.

What is the ingredient in the Lamp Fragrance that actively kills coronavirus?

90% of each Lamp Fragrance isopropyl alcohol and it is this, just as in hand sanitisers that is effective against coronavirus. The virus is surrounded by a lipid membrane, and the antimicrobial effect of the alcohol vapour is attributed to its ability to dissolve the lipid membranes and denature the proteins of the virus. The virus cell literally falls apart when exposed to alcohol vapour.

Does it matter what fragrance I choose if I want to sanitise the air?

No it doesn't. All our Lamp Fragrances are made from 90% isopropyl alcohol, and the addition of the fragrance doesn't affect the action of the alcohol on infectious agents. However certain ingredients in fragrances, such as some essential oils, can also have enhanced effects.

Is isopropyl alcohol safe to breathe in?

When the Lamp is used in accordance with the instructions, the amount of isopropyl alcohol (IPA) released into the air is well within the safe limits for adults, children and pets. The majority of the IPA is burned during the catalytic combustion process which breaks it down into simply water and carbon dioxide, and the remaining IPA which is released into the air diffuses very rapidly.

The OSHA (Occupational Safety and Health Administration) limit for exposure to IPA is an airborne concentration of 400ppm (parts per million). Using a large Fragrance Lamp for the recommended 30 min period, in an average sized room, results in an airborne concentration of IPA around 19ppm, assuming zero airflow. Allowing for normal household conditions with a small airflow, the concentration will be even lower than this.