

COURSE TITLE: HOUSEHOLD PRODUCTS

MODULE TWO: AIR FRESHENER.

Air fresheners are consumer products that typically emit fragrance and are used in homes or commercial interiors such as restrooms, foyers, hallways, vestibules and other smaller indoor areas, as well as larger areas such as hotel lobbies, auto dealerships, medical facilities, public arenas and other large interior spaces. If you have ever lived close to a landfill, you can probably tell the volume of rain about to fall just from the stench (poignant moving air) that hovers around the landfill and its surrounding. The neighborhood smells really bad, stale and un-fresh, one of the plagues of urbanization. Generally, odor has been associated with memories, emotions, time, health status, life (remember when you thought you caught a whiff of something 'dead'), even productivity (most of us have learned to associate sleep and work time with certain smells in the course of the day) to mention a few. This makes the sense of smell highly significant to our perception of life. As crucial as it is – the power of odor – we all want to be in an environment that fosters great feelings of positivity like love, happiness, hence, vast majority of people do care about how their environment smell.

Apart from what it does to one personally, odor makes a big impression on our social interaction and people would go the extra mile to create that ambiance that promotes this great feeling of energy and positivity. We basically associate odor with everything including the good, the bad and lovely. Also, we are warned about any danger around our surrounding just from the power of smell. Some odor draws us closer while others make us cringe. So whether you are in the office or at home, indoors, or outdoors, the role of a clean, fresh and pleasant air is undoubtedly important.

One can foster a constant feeling of freshness in your environment by ensuring adequate ventilation and removing the source of bad odors among others. Better still, you could invest a little more by deliberately creating the ambiance you most prefer and this thus, brings me to the world of air fresheners.

There are many different methods and brands of air fresheners. Some of the different types of air fresheners include electric fan air fresheners, gravity drip, hygiene odor control cleaning systems, passive non-mechanical evaporating aroma diffusers, metered aerosol time-operated mist

dispensers, sprays, candles, oils, gels, beads, and plug-ins. Some air fresheners contain chemicals that provoke allergy and asthma symptoms or are toxic. Air freshening is not only limited to modern day sprays, air freshening also can involve the use of organic and everyday household items. Although air fresheners are primarily used for odor elimination, some people use air fresheners for the pleasant odors they emit.

Fragrances have been used to mask odors since antiquity. A variety of compounds have been used over the past two millennia for their abilities to create pleasant aromas or eliminate unpleasant odors. The first modern air freshener was introduced in 1948. Its function was based on a military technology for dispensing insecticides and adapted into a pressurized spray using a chlorofluorocarbon (CFC) propellant. The product delivered a fine mist of aroma compounds that would remain suspended in the air for an extended period of time. This type of product became the industry standard and air freshener sales experienced tremendous growth. In the 1950s, many companies began to add chemicals that counteract odors to their fragrance formulas. These chemicals, intended to neutralize or destroy odors, included unsaturated esters, pre-polymers, and long-chain aldehydes.

In the 1980s, the air freshener market shifted away from aerosols, due to concerns over the destruction of the ozone layer by chlorofluorocarbons (CFCs). Many other air freshener delivery methods have become popular since, including under the seat wafer air fresheners, scented candles, reed diffusers, potpourri, and heat release products.

We are all aware of how unpleasant our environments could be sometimes and how bad it could be on man's health. Most of us take air fresheners for granted. But without them our office spaces and commercial restrooms would quickly become hostile for both workers and customers. Air freshener gives an inviting smell wherever it is applied making it a very essential household product. Modern air fresheners do not only freshen the environments, but they also destroy microorganisms that can be harmful to health, they can be used anywhere be it in the hospitals, schools, churches etc.

When it comes to the sweet scenting world of air freshener (particularly the liquid-based ones), we see a pattern of evolution. Starting from the technological innovativeness employed to dispense fragrance, air fresheners like other well-known were originally a product of military technology

used to dispense insecticide but gradually evolved to its present-day commercial form. In today's market place, you are likely to pick from an array of choices when it comes down to air fresheners. They come in these colorful and eye-appealing sprays, candles, oils, gels, beads and plug-in. Air fresheners as explained earlier are primarily used to improve the quality of air we breathe. So you want to get rid of undesirable odors around your indoor space? Then, that's exactly what the air freshener does by simple definition. Air fresheners have the added potential to cover up, neutralize and replace bad odor. But then again, some people use air fresheners just for the pleasant odors they emit.

So how do air fresheners work? Research works have pointed out various ways the air fresheners actually work. Some like zeolite, activated charcoal or silica gel are in form of adsorbents acting by sponging up or adsorbing the source of the odor. Others like ozone, hydrogen peroxide, chloride, act by oxidizing and removing organic sources of odors from surfaces and in the case of ozone from the air as well. Some act as surfactants (the addition of texapon in household items like liquid soap, air freshener does this) or detergents, combining the potentials of emulsifying organic sources of odor (like oil) and cleansing. Some air fresheners work as air sanitizers, getting rid of airborne bacterial activity. Others just simply work by overpowering old, expired odors with a new air freshener. You are probably used to some of the most popular brands sold by their diverse techniques such as reed or wick diffusers, electrical plug-in devices, aerosols or sprays. By industry standard, for instance, the common components of the air fresheners in form of sprays include water (mostly de-ionized), fragrance, and propellant among other components. This thus tells us that apart from the slight differences in method of releasing the formulation, all air fresheners have one fundamental thing in common – their fragrance. These fragrances or sweet-smelling scents may be from natural origin (as in essential oil) or synthetic.

As part of the ingredients of the conventional air fresheners, there is the presence of propellants, oxidizing agents, disinfectants, preservatives to mention a few that have either been labelled toxic, carcinogenic and harmful according to different groups of independent researchers. For instance, a report issued in 2005 by the Bureau Européen des Unions de Consummateurs (BEUC) found that many air freshener products emit allergens and toxic air pollutants including benzene, formaldehyde (formalin), terpenes and styrene, phthalate esters and toluene. In addition, findings from a University of Bristol's Avon Longitudinal Study of Parents and Children (ALSPAC)

indicated a correlation between the exposure to volatile organic compounds through frequent use of air fresheners and other aerosols in the home and increased reports of earaches and diarrhea in infants, and with increased depression and headaches in their mothers. In spite of mounting evidences available on the effect of many of the harmful chemicals in many popularly-consumed household items, you can be sure a lot of these manufacturers really do not care about the acute and long-term effects of the harmful chemicals to the general public. All this goes on to show how industrial air fresheners have had drawbacks on the environment. From several studies, chlorofluorocarbons (CFCs) have been implicated in the depletion of the ozone layer, thus promoting the effects of global warming. So you see that, in addition to cost-friendliness, ready accessibility of materials needed for production, the air-freshener formula you would be learning in this module is still the best choice currently perhaps for its eco-friendliness.

The amazing aspect of this easy method is that you can do them yourself, without exposing yourself, loved ones and the entire world, to those harmful synthetic bio-chemicals. The business is so easy and it takes no time to start. If you are looking for a business you can go into with little capital look no further production of air freshener is the way to go. Every home has its own special smell. However, not all homes smell nice and fresh. Not everyone can afford expensive store-bought air fresheners. Cheap air fresheners often do not do their job and smell terrible. We will teach you how to make liquid air freshener so you can go ahead and start your business.

HOW TO MAKE AIR FRESHENER.

It is important to note that:

- If you decide to use 1 litre of water (which is 1000 ml), you need to use 100 ml of perfume/fragrance.
- Adding color or dye is completely optional, you can add it to make your air freshener look prettier.
- Menthol will give it a crispy fresh kick. However, not everyone likes the smell of menthol, so decide for yourself, whether you want to use it or not.
- Use a spray bottle to package product.
- You must leave the mixture to settle for 24 hours before packaging.

And now to the air freshener making part!

INGREDIENTS AND TOOLS

1. Methanol
2. Nitrosol
3. Color
4. Fragrance
5. Water
6. Mixing bowl
7. Measuring bowl
8. Turning/ stirring stick

HOW TO MAKE

- Add color/ dye to 1 litre water
- Stir continuously with the turning stick until color dissolves completely and the color is evened out in the water
- Add Nitrosol and stir
- Add Methanol and continue stirring
- Add your fragrance/ perfume to the mix
- Add the remaining liters of water
- Leave the mixture for 24 hours before packaging

REFERENCE

<https://infoguidenigeria.com/make-liquid-air-freshener/>

https://en.wikipedia.org/wiki/Air_freshener