

HOMEMADE AND ENVIRONMENT FRIENDLY INCENSE STICK WITH MARIGOLD AS RAW MATERIAL AND A CASE STUDY ON VARIETY OF INGRIEDIENTS

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Marigold Incense



**Abstract:-**

India is one of the largest agarbatti (incense stick) producing countries and has captured its own market and also foreign markets. Agarbatti is known for its tradition in India. Incense stick is lit up on many occasions in India for religious and social purpose. Indian Ayurvedic medical system has provided the base of modern and the most organized way of Agarbatti making mechanism and that is still in practice as of today. Nowadays agarbatti business is providing a lot of employment and also brings up the economy rate. In this process there is many such household and small scale industry which manufactures incense stick. A step is aroused towards the safety and homemade procedure and harmless smoke and also pleasant smell at the same time from incense stick. This article is to set up a eco-friendly incense stick and also step towards healthy India and Environment. This is the process to minimize the use of harmful ingredients.

KEYWORDS:Incense stick.



Objective:

With the popularity of incense, the concerns regarding its raw materials, manufacturing, quality, and safety have also grown over the years. These concerns have manifested as a shift in preference towards herbal, Ayurvedic and eco-friendly incense which provides some of assurance about the incense that we are inhaling. The objective is to reduce the harmful and poisonous contents from incense stick and trying to find an alternative for this topic. This will provide a different and herbal way to eradicate or minimize the use of harmful ingredients.

The main objective is to think in a unique way and use a better option rather than coal or harmful substances in the incense stick. Usage of marigold as a raw material instead of coal is used and usage of different ingredients instead of making. The main aim is experimentation in the ingredients.

Ingredients:

The basic ingredients of an incense stick are:

1. **Raw Material:** Instead of using coal, the dried samples of marigold flower in order to reduce the poisonous smoke and harmful gases and help combustion. Marigold was dried in the bright sunlight and made masala of that to add it to the binder.

There are also many usages of marigold flowers:

- a. Reduces Eye Inflammation and Conjunctivitis.
- b. Have natural antiseptic properties.
- c. Heals skin wounds, rashes etc.
- d. Naturally repels bugs and mosquitoes.
- e. Helps fighting infections.

2. **Base:**

Here we have used sample of dried marigold flowers and Makko powder and also little amount of Gum Arabic and little amount of refined charcoal for combustion. The base serves as a binder to the incense mix and also as a combustible agent that aids effective burning of your incense. Makko powder and gum Arabic form water soluble pastes which make them great binding agents. Good incense needs both binder and combustible.

3. **Liquid Binders:**

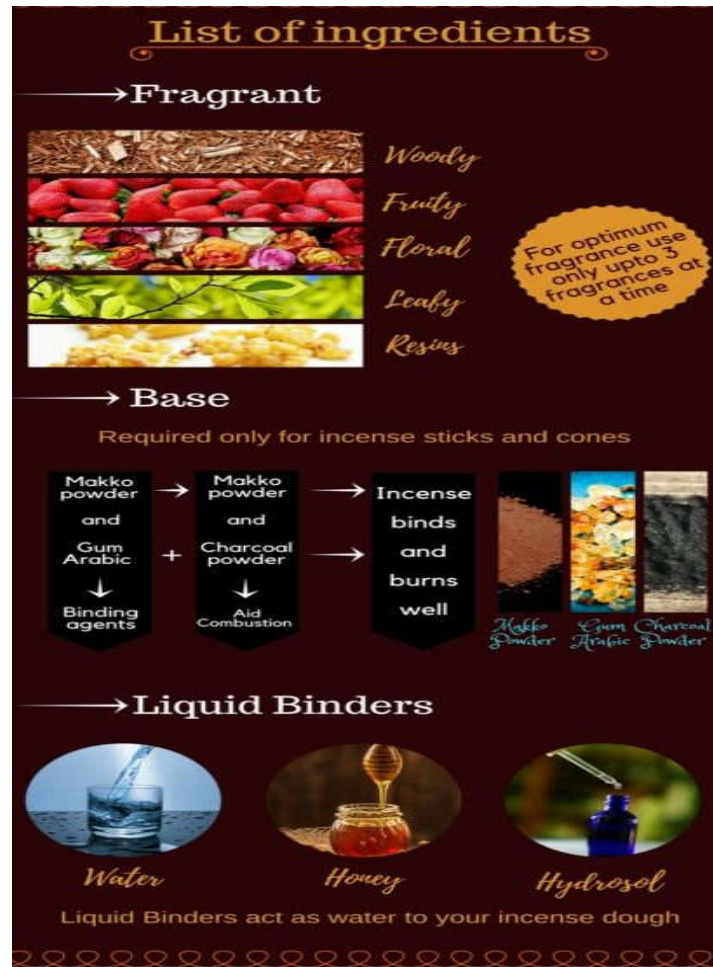
This is like adding water to make your incense dough. Distilled water or honey can be used a liquid binder to mix and bind your incense ingredients together. This process is done with care. If too much is added, it will become goeey. Also too little of the liquid binder could lead to cracks or breaking of your dried incense.

4. **Fragrant:**

Fragrances are aromas that are selling point of incense. There is no such choice here we can use any fragrances like woody, fruity, floral, leafy or resinous. We can also use Halmadii and many other fragrances.

The procedure followed is :

Fragrant combination (3 parts or 3 tsp)	Makko powder	Charcoal powder	Binder: Combustible ratio
If all 3 parts are resins	3 tsp	3 tsp	1:2 (e.g. 1tsp gum Arabic & 2 tsp Makko or Charcoal powder(marigold sample))
If 2 parts resin & 1 part woody or floral or leafy or fruity	2.5 tsp	2 tsp	1:2
If 1 part resin & 2 same parts of woody or floral (e.g. Myrrh+ Pinewood)	2 tsp	2 tsp	1:2
If No resin & all parts woody or other type (of same fragrant)	1.5 tsp	1 tsp	0.5:1
If woody+ floral+ leafy (no resin)	2 tsp	1.5 tsp	0.5:1



Experimentation in this field:

We can do a lot of experimentation in this field. This means that we can use a lot of varieties in the ingredients. The basic ingredients of an incense stick are bamboo sticks, paste (generally made of charcoal powder or wood powder and joss/jiggit/gum/tabu powder – an adhesive made from the bark of *litseaglutinosa* and other trees), and the perfume ingredients – which traditionally would be a powder of mixed ground ingredients, though more commonly is a solvent of perfumes and/or essential oils. After the base paste has been applied to the bamboo stick, it is either, in the traditional method, while still moist, immediately rolled into the flavoring agents, or, more commonly, left in the sun for several days to dry, and then dipped into the scented solvent.

Many Indian incense makers follow Ayurvedic principles, in which the ingredients that go into incense-making are categorized into five classes: ether (fruits), for example staranise; water (stems and branches), for example sandalwood, aloes wood, cedar wood, cassia, frankincense, myrrh, and borneol; earth (roots), for example turmeric, vetiver, ginger, costus root, valerian, Indian spikenard; fire (flowers), for example clove; and air (leaves), for example patchouli.

Halmadii is a fragrant binding ingredient which is used in traditional masala incense. It is an earth colored liquid resin drawn from the *Ailanthustriphysa* tree; as with other resins, it is a viscous semi-liquid when fresh, it hardens to a brittle solid as it evaporates and ages. Some incense makers mix it with honey in order to keep it pliable. Other tree resins or gums are also used as a binding agent, such as amber, myrrh, and frankincense, and these will add their distinctive fragrance to the finished incense; some resins, such as gum arabic, may be used where it is desirable for the binding agent to have no fragrance of its own. Even a combination of fragrances could be added for example Frankincense, and Pine to create a Christmassy woody combination of scents. You can even give it a new name like your personalized 'Holiday' fragrance or 'Festive aroma'. However, try not to over add different fragrances as it may ruin their synergy and the scent produced may turn out to be less pleasant. In our opinion, the optimum fragrances in an incense mix should not exceed three. So if you are aiming for the perfect 'Holiday' fragrance try a combination of Frankincense, Pine and Basil.

Scientists have developed an alternative gum for agarbatti:

“We have screened fruits, seeds, bark and gums from 20 plants and made trails with different gum to get closer to the properties of Jigat. We found that Jinghan gum (*Lanneacoromandelica*) mixed with bark powder of *Perseamacrantha* in 1:1 ratio yielded satisfactory results. *Lanneacoromandelica* (Jinghan or Moyna gum), an important gum yielding plant of family Anacardiaceous, along with 50 per cent of Jigat is found to be a good partial substitute for Jigat,” says Jain.



Conclusion:

We have completed the process of making homemade incense stick which will cause less harm to the environment and using marigold with one of its key ingredient and many varieties of fragrances and bases and also suggested and studied many other varieties of fragrances and gums and bases and raw materials.

**Acknowledgement:**

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