Beauty Care Production: The Definitive Guide (3)

In this third installment of the Business Blog, we talk production. Now that you have a business plan and possibly even a company registered, it's time to develop your products for sale!

By now you will also have an idea of the kind of cosmetic products you want to produce and sell, so the next step is sourcing all the ingredients, setting up your lab (if you are manufacturing yourself) and getting into the post production process.

Ingredients & Equipment

Ingredients are 100% product specific, so the ingredients you need will depend entirely on what products you are making.

Essentially Natural is a one-stop-shop for all natural beauty care ingredients. You can browse our ingredient categories or alternatively contact us for any assistance on ingredients. Please note that we don't currently offer formulation development services so we can't advise or help you with your formula, but we can advise on the ingredients that we stock.

Having the right equipment is equally as important, and will make your job so much easier!

A good place to start, especially for beginners, is our blog on setting up your lab:

Setting Up Your DIY Lab
A starting list of equipment we recommend you have:

Beakers - get a range of sizes to mix and blend in. You honestly won't ever have enough beakers, they are so handy!

Silicone spatulas, chattaway spatulas - for spooning, scraping down the sides of beakers and bowls, stirring and measuring out small amounts of powders. Spatulas are ultra handy to have in a home lab.

A decent accuracy scale - this is an absolute must if you are formulating your own products.

A thermometer - handy for making sure your ingredients are at the right temperatures.

A funnel - we love a funnel to pour product into bottles mess-free, as well as part of the straining system when making your own infusions and extracts (line the funnel with gauze swabs to make the straining system).

pH strips – another must-have to take pH measurements of your products (find out why pH is so important in this blog: The Importance Of pH In Formulation)

Isopropyl alcohol – not equipment per se, but you will need this for GMP (more on this below).

Things you will have at home:

A kettle and microwave for heating, or you can use a stove and heat your phases in a bain marie/water bath.

Spoons and other utensils.

A fridge for rapid cooling when required.

A sink and water for cleaning up

Formulating

Formulating and developing your products for sale is a rigorous process and an important part of your business. You want your products to perform well, be stable, look nice, feel good on the skin and do their job. You will need to decide if you are going to formulate and develop your products yourself, or if you are going to outsource this part.

If you are planning on manufacturing the products yourself, the first thing to ask yourself is, are you an experienced formulator or a beginner?

If you are a beginner then a great place to start to learn how to formulate and work with natural ingredients is our Blog. We have hundreds of articles and recipes available, all for free! You do not need a chemistry degree to create your own products, you just need to be thorough in your research and development process. We've broken it down for you here:

Get to know your ingredients

We get so many questions come in about which ingredients are needed to create a specific product that the person is wanting to sell. We can't stress enough: research products and ingredients so that you know what you need for your products! Get to know the different kinds of ingredients needed for your product, and what makes it work. A tip is to choose a shop-bought product you like and study the ingredients list, then research those ingredients. You can even attempt to recreate the product as part of your learning and research (it's called reverse formulating).

Research your ingredients and their properties

Properties you will want to know about every individual ingredient:

The usage rate: this is a bit of an obvious one, but important! Most ingredients have an optimum usage range which should be adhered to when formulating.

Function: what does your ingredient do? This will help you to determine how to use it.

What phase it goes into: water, oil, heated, cool down.

pH: what pH the product is, and what it requires. Eg. some preservatives and actives only work in a specific pH range.

Its solubility: is it water soluble, oil soluble, poorly soluble, insoluble? Does it need some heat to dissolve, or a specific kind of solvent?

Is it heat sensitive? Can it hold up in heat or does it degrade with high temperatures? Is it a heat sensitive oil? This will tell you what phase to add the ingredient and how to work with it.

Is it tolerant of electrolytes? This mostly applies to emulsifiers as some are not so tolerant of electrolytes, so incorporating a salt or electrolyte with a non-tolerant ingredient may cause the formula to split.

Any other specifics of the product.

Google is your friend here; learn how to properly research your ingredients! Pretty much everything is available online.

When you are ready to start experimenting, you can purchase small amounts of ingredients from Essentially Natural to play around with. This way the cost won't be too high while you are still learning, experimenting and developing your product.

Develop your formula and product

Once you know what type of product you want to make and what ingredients to use, then it's time to develop your formula and make up your product. Like the ingredients used, the formulation and method will be unique to the product.

Here is an informational blog giving insights on developing a particular kind of product: Developing A Formula
Developing a successful product may take many iterations to get it right. When we develop our recipes for the blogs we often make up to 6 or 7 (and sometimes more!) versions of the product before letting the formula out into the world. Note down your ingredients, amounts and method for each version so if you need to make changes you can easily adjust the formula.

Product development is a time- and ingredients-intensive process. Although you might get lucky, chances are you won't have a perfect product on the first try; you will need to make tweaks and changes over a few test batches to get it just right.

Testing

You've finally developed a product that you love, but it's not ready for sale just yet. It has to graduate high school first: it needs to pass a bunch of tests.

You will need to do considerable testing on your product to ensure it meets standard criteria before selling it: performance, stability testing (does it hold up in different conditions such as temperature fluctuations, transport, time, etc), microbial resistance, etc.

You will want your product to pass all kinds of tests because you don't know the conditions it will need to survive in order to reach your customer, and how it will hold up in different seasons, storage and usage conditions. Your product may need to travel in a hot delivery van, or sit in a courier warehouse for a few days on its way to being delivered, or it may be left on a sunny shelf by your customer; wet fingers may go into the product jar to scoop it out. It will need to withstand all sorts of conditions, so be rigorous in your testing.

You can do stability testing yourself by creating different conditions for your product and testing them over time to see how they hold up, or you can have your product tested by a lab. We recommend keeping a notebook and even taking pictures of your product before and after testing. This way you can easily note any changes or areas to improve. Before you test your product, note down it's appearance, skin feel, scent, colour, viscosity etc. Take a picture. Then do the same after each of your tests.

Some tests you can perform:

Accelerated testing (in the packaging you plan to sell your product in):

Freeze/thaw test - freeze for 12 hours then thaw for 12 hours and repeat over a 5 day cycle. Check to see that the texture/smell/colour/viscosity/etc all hold up. Note any changes that do occur (if any) and assess how you can fix them.

High temperatures - store your product in an incubator or improvise with a warming tray or even a reptile terrarium at 45 degrees for 4 weeks. This gives you an idea if your product will hold up in hot weather and in transport vans, as well as being stable over time.

Low temperatures - keep your product in the fridge for a few weeks. This gives you an idea if your product will hold up in cold weather and in transportation, as well as being stable over time.

Agitation test - roll it around, drop it, drive in the car over bumps, shake it, take it on a roadtrip, etc. This will give you an indication of whether your product will hold up during transportation.

Light stability - put your product under a constant light and observe over a few weeks. There should not be any changes. If you notice changes such as colour variation, then you will need to see how you can avert this. Perhaps you need an antioxidant to prevent oxidation from occurring, or perhaps there are some light sensitive ingredients in your formula - consider your packaging.

Real time testing:

Room temperatures - store the product in a cupboard at room temperature for the length of time that you want your shelf life to be, eg. 6 months, 12 months. You don't need to wait this long before launching your product, but you will want to keep a sample of your batches for your own testing and for real time stability.

Keep your test samples in the packaging you intend to sell them in. Test for any reactivity to the packaging.

Signs of product instability to take note of and manage:

Separation/splitting

- If there is any kind of separation or splitting of your formula you will need to go back to the drawing board and modify your formula. You may need to add in more emulsifier, or add in a stabilizer. Check that the oil phase fits the emulsifiers specs eg. some emulsifiers can't handle a very low or very high oil phase. Check your pH. Did you homogenise your mixture correctly? There are many variables at play in a formula and you will need to eliminate them one by one until you find the issue.

Changes in pH

- The pH of your product should be formulated to fit within the preservatives's pH requirements, and also within or close to the pH of the skin (typically around 5.5). You may also need to consider any ingredients that have their own pH requirements, and use a different preservative if necessary. If your product's pH is drifting over time, this is a sign of instability, and could cause skin irritation or even render the preservative ineffective. pH is really important! Read more on pH here.

Microbial growth

- There should be no growths visible. Any spots or areas of mold, fungi or bacteria forming should be noted and then you will need to assess your preservative system.

Changes in colour

Changes in scent from good to bad

Changes in viscosity

- Your product's final viscosity settles after 24-48 hours so only do your tests after this period.

Any other noticeable changes

Your tests can tell you if you need to put any special storage instructions on your products. Although stable products shouldn't need special storage, most customers won't have an issue with storing the product in a cool cupboard, out of direct sunlight, etc. in order to prolong the shelf life of the product and keep it in optimum condition.

Microbial testing

Microbial tests will need to be performed by a lab. This will give you an idea of the shelf life you can claim for your product, and ensure that is safe for use.

If you don't have any microbial tests performed on your product, at the very least you will need to have tested your product in all the conditions above (including the real time stability testing) for a long period of time to ensure your product remains stable and no growth occurs. It would be a disaster if you sold your product and some time later the customer complains of mold.

You may want to consider giving some of your product away to friends, family and test subjects in order to test and receive feedback on your product.

GMP (Good Manufacturing Practice)

It is vitally important to have a good manufacturing practice or GMP. Your workspace or lab needs to be sterile, as do your utensils and equipment. You need to have a set of manufacturing standards that you conform to.

Here is some further information on GMP: https://www.sgs.co.za/en/consumer-goods-retail/cosmetics-personal-care-and-household/cosmetics-and-personal-care/audits-and-certification/cosmetics-gmp-audits

Universal acceptance: ISO 22716:2007: https://www.iso.org/obp/ui/#iso:std:iso:22716:ed-1:v2:en

Basically, all of these need to be in order:

Wearing PPE (personal protective equipment) when manufacturing - this can include gloves, hair net, lab coat, goggles, mask, etc

Sanitising - of workspace, utensils, equipment, packaging, etc

Storage conditions - of ingredients, utensils, equipment, final product etc

Formulation procedures - write them down

Dates - take note of ingredient expiration dates, retest dates, etc

Quality control - including calibrating instruments to ensure they are correct

Write out your standard operating procedure (SOP)

Keep a sample of each batch that you make and sell (this way you can go back to a particular batch should a customer have any problem)

And more

Packaging Solutions

The last step in the production process is to package up your product. Packaging is often called the silent salesperson - it can really sell your brand. So you will want to choose packaging that is appropriate and eye catching.

When choosing packaging, consider your ethics, product requirements and target market.

If sustainability is part of your ethics then you will want to use sustainable packaging. Essentially Natural sells a large range of glass, aluminium and paper packaging which are all recyclable, reusable and sustainable.

Choose packaging that fits your product's requirements. If your product is best pumped out of a bottle, spritzed on the face or scooped out a container, choose the corresponding packaging solution. We have a range of packaging types to suit all kinds of products.

You will also want to consider your target market. If you're going for the more simple, less-is-more, and possibly less expensive market, then choose appropriate packaging for that.

If you're targeting the more luxury and expensive market, then you will need some aesthetic packaging to match.

Basic packaging - sometimes less is more. You can keep it minimalist with glass bottles, jars and tins.

High end packaging - expensive, luxury look and solid, weighty feel. Think fancy glass bottles and jars with gold and silver collars and lids, or even frosted glass.

Labeling

Labeling is probably the first thing your customers will notice about your product and branding. You will need to work with a designer and label maker to come up with a brand and label. Don't forget to include all the relevant information on your label:

The ingredients listed in the correct order (in order of most to least) and with correct INCIs;

Any certifications or accreditations your brand has should be included on the label;

Storage and usage instructions;

An expiry date or expected shelf life;

The quantity of product;

etc

We hope this provides you with lots of info to work with. All the best with your production line!

Next: Launching Your Business