APISARA

MELT & POUR

Understanding, choosing and working with glycerin soap bases

Apisara practical guide - from first trials to controlled production

WHY THIS GUIDE?

> Melt & Pour is often presented as very simple: melt, add, pour. That is true for getting started, but producing consistent, attractive, stable and reproducible bars requires an understanding of the base, its limits and the behaviour of additives. This guide clearly distinguishes customising a ready-made base from carrying out saponification.

Contents

1. What is Melt & Pour?
2. Melt & Pour, cold process and hot process: do not confuse them
3. Read the base documentation first
4. Basic equipment
5. Basic procedure, step by step
6. Fragrance: dose, temperature and compliance
7. Colouring a Melt & Pour base
8. Adding oils, butters, plants, honey or milk?
9. Understanding “sweating”
10. Bubbles, surface skin and layers
11. Quick troubleshooting
12. Designing a reproducible formula
13. Small trials: the best habit
14. Professional production and regulation
15. Melt & Pour in hot and humid climates
16. What Melt & Pour can teach
17. Pre-production checklist
18. Essential vocabulary

Free educational resources — apisara.org

1. What is Melt & Pour?

Melt & Pour (M&P;) is a pre-manufactured cleansing base designed to be melted and reshaped. Depending on the product, it may be a true soap base, a syndet base or a mixed system. The end user normally does not carry out the original saponification: that stage has already been completed by the base manufacturer.

Bases may be transparent, white, palm-oil-free, enriched with fats, milk or aloe vera, marketed as low-sweat, or designed for particular uses. Commercial descriptions alone do not establish composition: the INCI list and supplier documentation remain the reference.

KEY POINT

Melt & Pour does not mean “pure glycerin soap”. Glycerin is important in many bases, but the formulation also contains soaps and/or surfactants, water, solvents or humectants, structuring agents and other ingredients depending on the product.

2. Melt & Pour, cold process and hot process: do not confuse them

Method	What the maker does	Handles lye?	Before use
Melt & Pour	Melts a pre-made base, customises and moulds it	Normally no	After cooling and stabilisation
Cold process	Saponifies oils with an alkali solution, then moulds	Yes	Curing is generally required
Hot process	Conducts saponification with deliberate heat	Yes	Process differs; drying/stabilisation still matter

M&P; is particularly useful for learning accurate weighing, simple formulation, fragrance, colour, moulding and design without directly handling caustic soda. It does not, however, offer the same formulation freedom as building a recipe from oils and alkali.

3. Read the base documentation first

Before manufacturing, identify the INCI list, recommended temperature range, limits for added ingredients, fragrance recommendations, storage conditions and, for professional production, the regulatory documentation supplied.

A transparent base can become cloudy when too much oil, certain powders or insoluble materials are added. A “low-sweat” base may tolerate humidity better, but no base is completely independent of climatic conditions.

4. Basic equipment

Equipment	Purpose / note
Scale	Weigh base and additives; avoid formulating only in drops or spoonfuls.
Heat-resistant container	Clean, dry and suitable for the chosen heating method.
Spatula	Gentle mixing to minimise bubbles.
Thermometer	Useful for reproducibility and preventing overheating.
Mould	Silicone or another compatible material.
Knife / base cutter	Cut the base into even pieces for uniform melting.
Work protection	Even without lye, molten base can cause thermal burns.

5. Basic procedure, step by step

1 - Prepare. Clean and dry equipment, prepare the mould, weigh additives and cut the base into even pieces.

2 - Melt gently. Use the heating method recommended by the supplier. Heat progressively and stir without whipping. Avoid boiling.

3 - Control temperature. Overheating can increase evaporation, change texture, encourage bubbles or damage some additions. The best working temperature depends on the base.

4 - Add colour and fragrance. Incorporate them at temperatures compatible with both base and ingredient. Mix thoroughly but gently.

5 - Pour. Fill the mould before the base thickens excessively. For layered designs, use conditions that promote adhesion between layers.

6 - Cool. Allow the product to solidify without premature handling.

7 - Unmould and package. Once sufficiently firm, unmould cleanly. In humid environments, suitable packaging can reduce water uptake and “sweating”.

SAFETY

Not handling NaOH does not mean there is no risk. Molten base can cause thermal burns. Fragrances, essential oils, colourants and other additives have their own precautions. Consult supplier information and Safety Data Sheets where relevant.

6. Fragrance: dose, temperature and compliance

Fragrance quantity should not be chosen solely according to the desired scent strength. It depends on the base, the fragrance, supplier documentation, applicable restrictions and product category. For fragrance compounds, consult supplier information and, where applicable, IFRA documentation.

Essential oils are also complex chemical mixtures. “Natural” does not mean unlimited dosage or absence of sensitisation risk.

7. Colouring a Melt & Pour base

Water-soluble dyes may migrate in some multilayer designs. Pigments and micas behave differently and can settle if poorly dispersed. Plant-derived colours may shift shade or lack long-term stability.

Type	Advantage	Watch for
Soluble dye	Often bright and easy to distribute	Migration; permitted use
Mica / pigment	Wide range of visual effects	Dispersion, settling, opacity
Clay / powder	Natural appearance and texture	Cloudiness or deposits
Plant colourant	Natural positioning	Often variable light/time stability

8. Adding oils, butters, plants, honey or milk?

One of the most common mistakes is trying to transform a ready-to-use base by loading it with ingredients. An M&P; base is already a balanced formulation. Too much oil or butter can reduce lather, soften the bar, cause seepage or reduce transparency.

Water-containing ingredients, fresh plant purées, fresh milk or some homemade preparations can alter microbiological stability and should not be added without understanding their impact. Dry powders and botanicals can also brown, migrate, feel abrasive or create an unstable appearance.

PRACTICAL RULE

For any new ingredient: first check the base manufacturer's recommendations, start with a small weighed trial, retain a control sample and observe hardness, lather, odour, colour, surface and stability.

9. Understanding “sweating”

Many M&P; bases contain humectants. In humid air, their surface may attract water and form droplets, commonly called “sweating”. This is not actual sweat produced by the soap.

To limit it: select a base suited to the climate, avoid very humid storage, do not leave bars unnecessarily exposed to air and use appropriate packaging where the formula and regulations allow.

10. Bubbles, surface skin and layers

Bubbles often come from vigorous stirring or pouring. A thin skin may form when the surface cools before the bulk. In layered soap, a layer that is already too cold or smooth may adhere poorly to the next one.

Spray techniques used by some makers should be evaluated according to the substance sprayed, safety rules and intended product. They do not replace control of temperature and pouring time.

11. Quick troubleshooting

Problem	Possible causes	Checks / corrections
Soft bar	Too much liquid/oily additive; unmoulded too early	Review percentages; allow full cooling
Wet surface	Humidity; hygroscopic base	Suitable low-sweat base; storage and packaging
Cloudy base	Additives, overheating, unsuitable transparent base	Compare with an unmodified control; review dose and temperature
Low lather	Excess oil/butter or additive overload	Reduce additions; test base alone
Weak scent	Dose, volatilisation, low-tenacity fragrance	Check addition temperature and permitted dose
Excessive / irritating scent	Overdose or unsuitable material	Quarantine batch; check documentation and limits
Layers separate	Poor pouring timing or cold/smooth surface	Optimise temperature and layering technique
Powder settles	Particles too heavy or base too fluid	Improve dispersion; reduce amount; pour at suitable time

12. Designing a reproducible formula

Even with Melt & Pour, working in percentages greatly improves reproducibility. The base normally represents the large majority of the formula; additions should remain within the limits intended for that base.

Teaching example: in 1,000 g of finished product, a 1% addition equals 10 g. This makes it easy to scale a 100 g trial to a larger batch. This is not a recommended dosage for any specific fragrance or additive: actual limits depend on the material.

13. Small trials: the best habit

Before a new production run, make a small trial batch. Record the base reference and lot, weights, temperatures, colour, fragrance, additives, setting time and observations. Keeping a retained sample allows later comparison.

This simple discipline turns a creative activity into a controlled process and makes troubleshooting much easier.

14. Professional production and regulation

Using a pre-manufactured base does not remove obligations that apply to the finished cosmetic product. Depending on the country, the person who customises, packs and places the product on the market may need to meet requirements for safety, product documentation, good manufacturing practices, labelling, traceability and notification.

Base documentation makes this work easier, but it should not be confused with assessment of the finished product after adding fragrance, colourants or other ingredients.

PROFESSIONAL POINT

> Keep the exact base reference, its lot number, supplier documents, additive lot numbers, the formula used and the finished-product batch number. Without this documentation chain, investigating a complaint or anomaly becomes much harder.

15. Melt & Pour in hot and humid climates

In tropical climates, storage temperature and especially humidity can become decisive. A base that performs well in a temperate room may show more surface moisture, softening or deformation in hot and humid conditions.

Before launching production, test the base under real storage conditions, verify the packaging, avoid direct sunlight, monitor poorly ventilated storage areas and compare several bases when necessary.

16. What Melt & Pour can teach

M&P; is an excellent entry point into making: accurate weighing, workstation organisation, temperature management, colour dispersion, fragrance, moulding, traceability, percentage calculations and visual quality control. When properly mastered, it can also be a professional technique in its own right.

Its apparent simplicity should therefore be neither dismissed nor overstated: it is a different method, with its own possibilities and limitations.

17. Pre-production checklist

Before starting	Checked
Base identified with INCI and lot number	
Supplier documentation available	
Formula expressed in grams and percentages	
Fragrance/additive limits verified	
Equipment clean and completely dry	
Working temperature planned	
Mould ready before melting	
Manufacturing batch number assigned where needed	
Packaging suited to storage conditions	

18. Essential vocabulary

Term	Short definition
M&P; base	Pre-manufactured base intended to be melted and remoulded.
Humectant	Substance with a strong affinity for water.
Sweating	Moisture droplets appearing on the surface of a hygroscopic base.
Migration	Movement of a colourant from one zone or layer to another.
INCI	Nomenclature used to declare cosmetic ingredients.
Batch	Quantity made under defined conditions and identified for traceability.

Conclusion

Melt & Pour makes it possible to produce customised bars quickly without carrying out saponification yourself. To move from hobby use to a genuinely controlled practice, three principles make the difference: know your base, limit and weigh additions, and document every trial.

A good base cannot correct poor formulation, and attractive appearance does not guarantee stability or compliance. The best approach is progressive work with comparative trials and reliable supplier data.

Apisara resources

In addition to the saponification calculator, the dossiers and technical sheets available on apisara.org form a free knowledge base. Articles published on Substack and Facebook complement these resources.

apisara.org - Apisara website and resources Substack - articles and technical dossiers Facebook - Apisara educational publications

Licence and disclaimer

Eric Bertrand for Apisara - Version 1.0 - 1 October 2026

Creative Commons Attribution-NonCommercial (CC BY-NC). You may share and adapt this document with attribution, subject to the conditions of the licence.

Disclaimer: this guide is educational material. It does not replace laboratory analysis, an SDS, supplier specifications, a cosmetic safety assessment, or the regulatory obligations applicable to the product and country.