

# **CRYSTAL SOAP RANGE**

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### HOW TO USE THE PRODUCT

#### **Basic Procedures**

Finished soap bars are made by melting the Crystal soap base and pouring the molten soap into moulds.

#### (i) Open & Cut

Remove the soap base from the packaging and cut it into smaller pieces to aid melting and even heating.

**Note:** If using a Crystal Soap Base containing TiO<sub>2</sub>, either use the whole block of soap or, if you need a smaller amount, cut a vertical section from top to bottom of the block. Due to producing large volumes during manufacture, a proportion of TiO<sub>2</sub> migrates inevitably to the bottom of the block, therefore cutting as suggested will result in getting the same amount of TiO<sub>2</sub> in your soap bar every time. Once melted & poured this migration is not visible in the final soap bar, as the volume is a lot smaller.

**Note:** For Crystal Oatmeal Shea it is normal for the oatmeal to drop out as large volumes are produced during manufacture. It is advised to either use the whole block of soap or cut a vertical section from top to bottom of the block. Once melted & poured this drop out / migration is not visible in the final soap bar as the oatmeal has mixed back in.



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**Note:** If using one of our Suspending bases, these are capable of suspending particles. The level of suspension achieved depends upon the size and weight of the particle to be suspended. Testing with different particle sizes and weights is recommended.

### (ii) Melt.

The soap base must be heated in a suitable vessel, such as a glass beaker.

Melt the product, to about 75°C, in a microwave or a suitable heating device ensuring that the base melts evenly. The soap base should be heated until completely homogenous with gentle agitation to avoid boiling over.

Avoid overheating the soap, as it may become dark in colour.

### (iii) Mix

Once the base is molten, additives such as fragrance, colour and actives can be added to customise the base. Simply add the chosen additives to the molten product and mix to ensure even distribution. See more details about how to process these ingredients in section 2.

#### (iv) Pour

Working quickly, simply pour your soap base into your mould.

When transferred in the moulds, spraying the surface of the soap with alcohol helps to remove any air bubbles left. The moulded soap bars should be handled carefully until they are completely cool. The moulds must be clean and manufactured from suitable materials such as silicone.

The base should be poured between 68 – 72°C.



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### 2. HOW TO FORMULATE

### **Perfuming Soap Bars**

### (i) Correct choice of perfume

Trials in our laboratories have shown that most perfumes can be used successfully in Crystal soap bases.

Note: the choice of perfume may impact:

- Ease of use and solubility
- Stability of the soap bar at low temperatures
- Colour of the soap bar
- Compatibility with the bar wrapping material.

Fragrances levels of 1 % or less usually give an acceptable odour and rarely cause stability problems. It is advised that a 3% maximum of additives to be added to the base including 1% maximum for fragrance. Levels of 3% or more may affect colour and clarity of soap bars at low temperature.

### Colouring Soap Bars

Soap bars can be made in almost any colour by adding colourants.

Add a small amount of colour to the base and build until the desired colour is reached. Both powder and liquid colourants can be used. If having trouble dissolving powdered dyes into soap base, dissolve the powder into a small amount of water prior to addition.

### 3. STABILITY GUIDANCE

During the development of this base our standard stability testing protocol was successfully conducted, this included monitoring for a 12 week period under the following conditions: Ambient (light & dark), Fridge (5°C), Oven (40°C)



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Once the base has been used to formulate a final finished product, via the addition of additives and fragrance, we highly recommend that additional stability is conducted to verify the final product.

### 4. MICROBIOLOGY GUIDANCE

Soap base has an alkaline pH, this naturally creates a hostile environment for microbes. Soaps with alkaline pH>9 present an environment unfavourable for the growth of microorganisms. As a result, preservation is not usually required.

To verify this risk theory (BS ISO 29621:2010), we have conducted microbiological challenge testing on representative soap bases to ensure the robustness of the bases.

Once the base has been used to formulate a final finished product, via the addition of additives and fragrance, we highly recommend that additional microbiological challenge testing is conducted to verify the final product.

### 5. PRODUCT SAFETY

Our product bases have been formulated to comply with the Cosmetic Product Regulation (EU) No.1223/2009.

Once the base has been used to formulate a final finished product, via the addition of additives and fragrance, a final Cosmetic Product Safety Report (CPSR) will be required for sale in the EU/UK.

#### 6. STORAGE

Optimum storage conditions 5-30°C

For base shelf-life, see delivery certificate of analysis (CofA).

For more info, tips and troubleshooting tricks on our soap bases, visit our website www.stephensonpersonalcare.com