



"Emulsifier-free" emulsion base moisturising cream with CORN PO4 PH"B"

"Formulated and developed by Rockwood Additives Limited"

| Ingredients | INCI-Name | %w/w | Supplier |
|------------------------|---|-------------|-----------------------------|
| Aqueous Phase 1 | | | |
| aqua | aqua | 37,75 | |
| Hydrolite-5 | pentylene glycol | 5,00 | Dragoco Gerberding & Co. AG |
| CORN PO4 PH "B" | distarch phosphate | 2,00 | AGRANA |
| Inutec SP-1 | inulin lauryl carbamate | 0,70 | Orafti Non Food |
| Aqueous Phase 2 | | | |
| Aqua | aqua | 29,30 | |
| Laponite XLG | sodium magnesium silicate | 2,00 | Rockwood Additives Limited |
| Dermosoft 1388 | aqua, glycerin, levulinic acid, sodium hydroxide, p-anisic acid | 0,40 | Dr Straetmans |
| Oil Phase | | | |
| Cetiol CC | dicaprylyl carbonate | 4,50 | Cognis |
| Phytosqualan | squalane | 3,00 | Sophim |
| Prisorine ISIS 2039 | isostearyl isostearate | 1,80 | Uniqema |
| Arlacel 80 | sorbitan oleate | 0,80 | Uniqema |



Pre-mix 1

| | | | |
|---------|---------|------|--|
| Aqua | aqua | 5,00 | |
| Betaine | betaine | 2,00 | |

Pre-mix 2

| | | | |
|-----------------|-------------------|------|------------------|
| Aqua | aqua | 3,88 | |
| calcium lactate | calcium lactate | 0,12 | PURAC Biochem bv |
| Purac Hipure 90 | lactic acid, aqua | 1,30 | PURAC Biochem bv |

| | | | |
|--------------------------------|------------------------|---------------------|--|
| sodium hydroxide solution, 18% | aqua, sodium hydroxide | *0,25 (see note) | |
|--------------------------------|------------------------|---------------------|--|

| | | | |
|-----------------------|--------|------|--|
| Parfum, allergen-free | parfum | 0,20 | |
|-----------------------|--------|------|--|

PROCEDURE

1. Aqueous Phase 1: Pre-mix water and pentylene glycol; disperse other ingredients of Pre-mix 1 in sequence, using a rotor-stator mixer, such as a Silverson. Then mix in a planetary mixer for 30 minutes.
2. Aqueous Phase 2: Add Laponite to water. Use high velocity blade for 10-15 seconds to wet the Laponite. Then mix at lower speed for 30 minutes, Add Phase 2 into Phase 1 and continue mixing for a further 30 minutes.
3. Add the Dermosoft with stirring and mix for a further 15 minutes to produce a smooth homogenous gel.
4. Combine Oil Phase ingredients in order shown with stirring to produce a transparent, low viscosity liquid. Add the oil phase to the aqueous phase without stirring. Homogenise on a Silverson mixer for 20 – 30 seconds then agitate the formulation using a planetary mixer. Maintain ambient temperature throughout this procedure.
5. Add Pre-mix 1, Pre-mix 2 and lactic acid in sequence to the emulsion with stirring on a planetary mixer until the formulation is smooth, initially, pH will be -4.
6. Make final pH adjustment to -4,8. "Note: Actual "level of sodium hydroxide to be used is determined by experiment in order to achieve the target equilibrium pH -5,5.
7. Add parfum to cooled formulation. Stir for 30 minutes.

This formulation is indicative only and no responsibility whatsoever will be assumed. This formulation is offered solely for your consideration, investigation and verification. It is your responsibility to thoroughly test any formulations before use. All those who use our formulations as well as those who process AGRANA Starches are themselves entirely responsible for the adherence to prevailing statutory regulations and the observance of patent rights as well as other protective rights for other companies. AGRANA does not assure any liability with respect to the composition of the formulation or the use in products.