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Detoxifying Micellar Facial Cleanser

Formula: FC1903-08

#	Phase	Ingredient	INCI Name	Function	% Wt./Wt.
1	B	Deionized Water	Aqua	Diluent	q.s.
2	**A**	**TI-NatSurf® QCB**	**Aqua, Cocamidopropyl hydroxysultaine, Myristamine oxide, Capryl glucoside, Decyl glucoside**	**Functional Surfactant System**	**25.71**
3	A	Essachem® SI	Plukenetia Volubilis (Sacha Inchi) Seed Oil, 2-n-Octyl-1-dodecanol, Mixed Esters	Natural Sensory Complex	0.50
4	C	Fragrance	Parfum	Fragrance**	q.s.
5	C	Phenoxyethanol	Phenoxyethanol	Preservative*	0.50
6	C	Color	Color	Colorant**	q.s.
7	—	Sodium Hydroxide (50% Solution)	Sodium Hydroxide	pH+ Adjuster	q.s.
8	—	Citric Acid (25% Solution)	Citric Acid	pH-Adjuster	q.s.

*The specific preservative to be used by the customer in any development of this formulation should be in-line with local regulations and/or the customer's own policies.
** The use of and levels of a fragrance and/or color are purely optional and at the customer's discretion.

Procedure:

Phase A: (Creating the Concentrate)

1. Into a suitable mixing vessel charge the calculated amount of #2.
2. Slowly heat #2 to 50°C with moderate agitation.
3. While maintaining 50°C, begin homogenization process to a speed of 1,200 RPM.
4. Add in #3 in a slow continuous stream into the vortex.
5. Once completely incorporated, continue homogenization at 1,200 RPM for 3 minutes.
6. Increase speed to 2,200 RPM for an additional 2 minutes.
7. After homogenization, move solution back to high mixing, and heat to 50°C for a further 15-20 minutes

Phase B: (The Dilution)

8. While maintaining moderate agitation and 50°C, charge the calculated amount of #1.
9. Heat the solution to 80°C and bring agitation/mixing to a high speed.

Phase C:

10. Discontinue heat and begin cooling process while maintaining agitation.
11. When at 40°C, then add ingredients #4, #5 & #6 and mix until uniform.
12. Discontinue heating, and check product specifications, and adjust accordingly. ‡
13. Continue to cool to 23°C.

Note: If solution is still not clear after cooling—reheat to 80°C and mix until clear.
‡ Adjust pH accordingly with either Citric Acid (25% w/w solution) or Sodium Hydroxide (50% w/w solution).

Target Characterization:

Appearance: @25°C:	Crystal clear micro-emulsion
Color:	As per customer's requirement
pH (10%) @25°C:	5.0 to 6.0
Total Actives (%):	9.5 to 10.5 typical

Formula Courtesy of

TC USA