

## **ARACHIS ONLINE TRADING**

### **MODULE18 : HAIR CONDITIONER**

Low-Cost Cream Hair Conditioner (20 L batch)

1. Water 15.8 L Base
2. Cetrimonium chloride (Arquad/Trogquad) 400 ml Main conditioning agent
3. Cetearyl alcohol (or cetyl alcohol) 1.2 kg Cream structure & slip
4. Light mineral oil 600 ml Softness & lubrication
5. Silicone emulsion (35%) 500 ml Shine & smooth combing
6. Glycerine 400 ml Moisture retention
7. Preservative (Phenoxyethanol or MIT/BIT) 25–30 ml Shelf life
8. Fragrance 20 ml Consumer appeal
9. Colour small Appearance
10. Citric acid solution (10%) ~50–120 ml Adjust pH to 4.5–5.5

#### **Mixing Procedure (critical for success)**

##### **Phase A — Water Phase**

Heat 13 L water to ~70–75°C

Add glycerine

Add cetrimonium chloride → mix

##### **Phase B — Oil Phase**

Melt cetearyl alcohol + mineral oil together (70–75°C)

Emulsification

Slowly pour oil phase into water phase while stirring

Mix 5–10 minutes → mixture becomes milky

Begin cooling while stirring gently

Cool-down Additions (below 45°C)

Add silicone emulsion

Add preservative

Add fragrance & colour

Adjust pH to 4.5–5.5 using citric acid solution

Top up water to 20 L

Leave overnight → thickens fully.

#### **Cost Control Options**

If silicone expensive:

reduce to 250 ml → still good

If cetearyl unavailable:

use cetyl alcohol (slightly lighter feel)