Applechem Formulary - Hair Care



Sulfate Freedom! Shimmer Shampoos (SH-004)

You can create transparent, high viscosity shampoos in Sarcosinate and Glycinate surfactant systems without difficulty.

SorbiThix L-100 also has synergy with carbomer to suspend pearl pigments, beads or oil droplets.

SorbiThix is the best in the class of non-ionic associative thickeners. It brings high perfume, high clarity and high viscosity with good foaming ability to ANY surfactant systems on the market, even the most challenging glutamate surfactant systems.

Specifications

- Viscosity: 11,460 cP for Sarcosinate 8,320 cP for Glycinate
- pH: 6-6.5 for Sarcosinate;

6.9-7.2 for Glycinate

- 50°C oven: 1 month stable
- Freeze-Thaw: Passed 3 Cycles

Processing Method

- 1. Set and heat water bath to 60-62 Celsius.
- 2. Add Phase A to a beaker and mix with spatula until uniform. Neutralize SF2 with 18% NaOH (for Glycinate only). Add Phase B and mix at 60-62 Celsius for 20-25 minutes (450-550 rpm).
- 3. Add Phase C. Premix Phase D₁ separately then add to beaker using water to rinse container. Let mix for another 15 minutes at 60-65 Celsius.
- 4. Add Phase D₂ then continue mixing for 5 minutes at 60-65 Celsius.
- 5 Cool the batch to below 40 Celsius and add Phase E. Let mix for another 5 minutes then adjust pH to the specification if needed.

PHASE	INCINAME (TRADE NAME)	SARCOSINATE USAGE (WT%)	GLYCINATE USAGE (WT%)
A	Distilled Water	42.93	43.75
	Acrylates Crosspolymer-4 (Carbopol Aqua SF-2)	6.00	6.00
В	Alkyl Polyglucoside (Plantaren® 2000 N UP)	4.00	
	Cocamidopropyl Betaine (35% active)	11.42	15.7
	Sodium Cocoyl Isethionate	2.00	
	Potassium Cocoyl Glycinate (25% active ; Sinolion Eversoft-30K)		26.0
	Sodium Lauroyl Sarcosinate (25% active ; Sinolion S-12)	24.0	
	SorbiThix L-100	1.20	1.10
C	Dimethiconol (and) TEA-Dodecylbenzenesulfon- ate (50% active;Xiameter Mem-1784 Emulsion)	3.00	3.00
	Calcium Aluminum Borosilicate (and) Silica (and) Titanium Dioxide (and) Perfluorononyl Dimethicone/Methicone/Amodimethicone Crosspolymer (and) Tin Oxide (Ronastar Royal Sparkle, EMD)	0.05	0.05
D ₁	Guar Hydroxypropyltrimonium Chloride (Jaguar Excel)	0.10	0.10
	Glycerin	2.00	2.00
	Distilled Water	1.00	1.00
D ₂	Betaine (Genecare OSMS BA)	1.00	
E	Wild Currant & Orange Flower Perfume (Creative 8661)	1.00	1.00
	Disodium EDTA	0.10	0.10
	Citric acid to pH on the specification if needed	Q.S.	Q.S.
	Preservative (DMDM Hydantoin)	0.20	0.20

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EDITION: NOVEMBER 2019 REF #: SARCOSINATE: 1108SINOSAR-SF2A GLYCINATE: 1108SINOGCK-SF2A