

**Concentrated Vitamin C Cream (131127E-4-F1)**

<b><u>INCI Name</u></b>	<b><u>Ingredient</u></b>	<b><u>%</u></b>
A Cetyl Alcohol (and) Glyceryl Stearate (and) PEG-75 Stearate (and) Ceteth-20 (and) Steareth-20	Emulium Delta	6.50
A Cetearyl Alcohol	Nafol 1618H	2.00
A Octyldodecyl Myristate	Corum 5024	5.00
A Octyldodecyl Stearoyl Stearate	Corum 5047	3.00
A Macadamia Integriifolia Seed Oil	Floramac Macadamia Refined Oil	3.00
A Dimethicone	BELSIL <sup>®</sup> DM 350	3.00
A Isohexadecane	Permethyl 101A	7.00
A Persea Gratissima (Avocado) Oil	Avocado (Persea Gratissima) Oil	2.00
A Phytosteryl Hydroxystearate	Corum 5081	0.50
B Water	Water	To 100.00
B Xanthan Gum	FMC XG 80	0.15
C Sodium Citrate,Dihydrate	Sodium Citrate	0.74
C N,N,N',N'-Ethylenediaminetetrakis (methylene-phosphonic Acid) Hydrate	TCI E0393	0.10
C Citric Acid Monohydrate	Citric Acid	0.65
D 1,3-Butylene Glycol	1,3-Butylene Glycol	3.00
D Methylparaben	Methylparaben	0.10
E Phenoxyethanol	Phenoxyethanol	0.50
E Fragrance	Rose TK 12801	0.04
E Fragrance	Lavande TK 6767K	0.01
E Ethanol	Alcohol (95%)	3.00
E 3-O-Ethyl Ascorbic Acid	Et-VC <sup>™</sup>	4.00

**Appearance** : White Cream

**pH Value (25°C)** : 4.19 by Cyber Scan pH510

**Viscosity** : 162,000 cP

Instrument Model	Spindle No.	Speed (rpm)	Test Period (Sec)	Temperature (°C)	% Torque	Container
Brookfield viscometer DV- II +Pro	LV4 64	2	30	25	55	20g Bottle

**Procedure :**

1. Pre-mix Part B until uniform and then add Part C into Part B while stirring.
2. Heat Part D until it has fully melted, and then add Part D into Part B/C while stirring.
3. Heat Part A and Part B/C/D to 75-80°C. Mix Part B/C/D with Part A using high speed.
4. Stir for 5 minutes before removing from heat source.
5. At 40°C, add Part E ingredients in sequence and mix well.

This is only a reference formulation. Before commercialization, it is recommended to thoroughly test the formulation or any variation of it to determine its final stability, performance, efficacy and safety.

**Concentrated Vitamin C Cream (131127E-4-F1)****Formulation stability assessment**

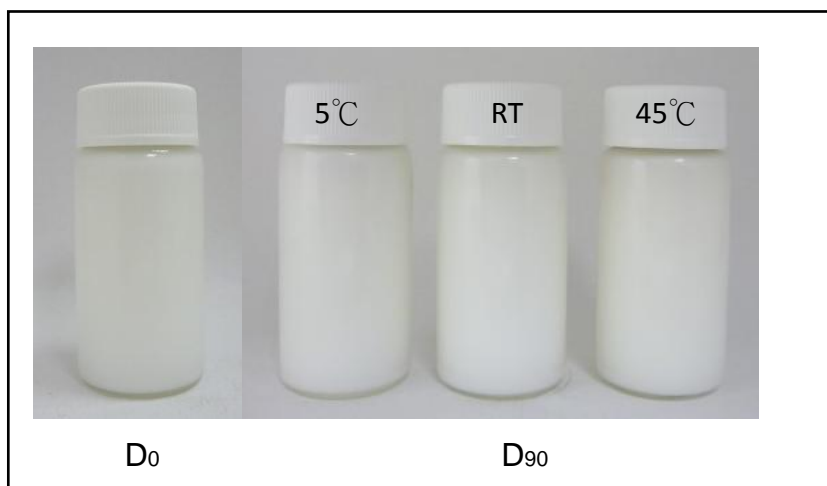
	3 Days	90 Days		
		5°C	RT	45°C
<b>Appearance (25°C)</b>	White Cream	White Cream	White Cream	Slightly Yellow Cream
<b><sup>1</sup>pH Value (25°C)</b>	4.19	4.14	4.14	3.97
<b><sup>2</sup>Viscosity (cP) S64/ 2rpm/ 30 Sec/ 25°C</b>	162,000	162,000	153,000	142,000
<b><sup>3</sup>Centrifugal Test</b>	Pass	-	-	-
<b><sup>4</sup>Assay(g)</b>	3.982	-	-	3.481062998
<b>Degradation(%)</b>	-	-	-	12.5800352
<b>Stability assessment result</b>	Pass	Pass	Pass	Pass

<sup>1</sup> : Cyber Scan pH510

<sup>2</sup> : Brookfield viscometer DV- II +Pro

<sup>3</sup> : Put the product in the oven at 50°C for 1 hour, then centrifuge at 5000rpm for 30 minutes.

<sup>4</sup> : Agilent 1260 HPLC



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