

FORMULATION

Concentrated Laundry Detergent

Overview

- High performance, low cost formula that reduces reliance on palm oil
- Soltellus 2101L functions as a sequestrant and dispersant, boosting enzymes and surfactant performance
- Made with biodegradable ingredients

Composition

	Trade Name	INCI	% w/w	Function
A		Water	q.s. to 100	
	Stepanol WA-Extra HP (Stepan)	Sodium Lauryl Sulfate (30% active)	20	Biodegradable anionic surfactant
	Eco Brij L6 (Croda)	Laureth-6 (100% active)	8	Biodegradable nonionic surfactant
		Sodium citrate	6	Biodegradable chelant
		Sodium oleate	1	Biodegradable anti-foamer
		Glycerin	3	Biodegradable solvent
B		NaOH or Citric acid		pH adjuster
	Soltellus 2101L (Lygos)	Sodium polyaspartate	4.4	Biodegradable dispersant/ sequestrant, boosts enzymes
C	Add the following ingredients when the formula has cooled down			
	Liquanase Evity 3.5 L (Novonesis)	Protease	1.2	Stain removal
	Amplify Prime 100 L (Novonesis)	Amylase	0.4	Stain removal
	Mannaway 200 L (Novonesis)	Mannanase	0.4	Stain removal
	Acticide MBS (Thor)	Methylisothiazolinone/ Benzisothiazolinone	0.5	Biodegradable preservative
D		NaCl		Viscosity modifier

Procedure

Add ingredients in the order listed. Dissolve each ingredient completely before adding the next. Adjust pH to 8. Always add enzymes and the preservative when the mixture has cooled down (if you are using temperature in your process). Adjust viscosity using NaCl.

Technical Specifications

Parameter	Value
Appearance (25°C)	Clear Liquid
pH (as is)	8.0
Viscosity (cPs)	750-1000
Stability (1 Month, 40°C)	Stable
Dose	22.5 ml

Performance

Suggested method: ASTM D4265-14 Stain Removal Performance

