FORMULATION

1,4-Dioxane Free Laundry Detergent

Overview

- · Formulated without ethoxylated surfactant to eliminate the presence of 1,4-Dioxane
- Soltellus[™] 2101S boosts enzymes and functions as a sequestrant and dispersant
- Made with biodegradable ingredients

Composition

	Trade Name	INCI	% w/w	Function
А		Water	q.s. to 100	
		Sodium citrate	3	Biodegradable chelant
	Soltellus 2101S (Lygos)	Sodium polyaspartate	1	Biodegradable dispersant, sequestrant, enzyme booster
	Milcoside 303 (LG household)	Decyl glucoside (50% active)	12	Biodegradable nonionic surfactant
		Sodium oleate	0.75	Biodegradable anti-foamer
	Stepanol WA-Extra HP (Stepan)	Sodium Lauryl Sulfate (30% active)	13.5	Biodegradable anionic surfactant
В		NaOH or Citric acid		pH adjuster
		NaCl		Viscosity modifier
С	Liquinase Evity 3.5 L (Novonesis)	Protease	0.8	Stain removal
	Amplify Prime 100 L (Novonesis)	Amylase	0.13	Stain removal
	Mannaway 200 L (Novonesis)	Mannanase	0.02	Stain removal
	Acticide MBS (Thor)	Methylisolhiazolinone/ Benzisothiazolinone	0.5	Biodegradable preservative

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Procedure

Add ingredients in the order listed, mixing until fully dissolved after each addition. Dissolve each ingredient completely before adding the next one Adjust pH to 8 with NaOH. Adjust viscosity using NaCl. Always add enzymes and the preservative when the mixture has cooled down (if you are using temperature in your process).

Technical Specifications

Parameter	Value
Appearance (25°C)	Clear Liquid
pH (as is)	7.8-8.2
Viscosity (cPs)	210-280
Stability (1 Month, 40°C)	Stable
Dose	45 ml

Performance (Stain removal)

Suggested method: ASTM D4265-14, using CFT SM-04 as the stain set



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