D-233

LIQUID LAUNDRY DETERGENT TABS

GUIDELINE FORMULARY

DESCRIPTION

Liquid detergent for laundry machines
Concentrated product for hydrosoluble capsules
Without glycols
Recommended dosage: 25mL product/was (1x capsule)

COMPOSITION	%
LEVENOL® F-200	**27.3**
EMAL® 270D	**10.4**
SULFONAX®	**9.7**
Glycerine 99%	20.3
Coconut Fatty Acid	15.0
Monoethanolamine (MEA)	≈ 9.3
Citric acid (anhydrous)	3,0
Enzymes	q.s.
Chelating agents	q.s.
Optical brighteners	q.s.
KAO Fragrance	**q.s.**
Dye(s)	q.s.
Preservative	q.s.
Glycerine 99%	Up to 100

TECHNICAL CHARACTERISTICS		Kao Method
APPEARANCE (20°C):	Clear viscous liquid	KCSA-258
pH (as it is):	8.0 - 8.5	KCSA-014
VISCOSITY BROOKFIELD (20ºC,cP):	1,000 - 1,300	KCSA-227
SURFACTANT ACTIVE CONTENT (%):	Approx. 65	KCSA-246
STABILITY TEST:	Correct	(1 month 40°C/RT/5°C)

RECOMMENDED OPERATIVE METHOD

Charge water at room temperature
Add MEA and Glycerine to the water and afterwards add SULFONAX® slowly. Optionally, you can also add optical brightener in this step.
Continue with the addition of Coconut Fatty Acid (previously melted).
Continue with the addition of Citric Acid (anhydrous).
Check pH and adjust it between 7.0-8.0, if necessary, with MEA.
Continue with the addition of LEVENOL® F-200 and EMAL® 270D, homogenizing the blend after the addition of each component.
Add the enzymes following supplier recommendations.
Continue with the addition of the other additives: chelating agents, preservative, opacifier, optical brighteners, perfume, keeping in mind supplier recommendations.
Final pH adjustment (8.0 - 8.5) with MEA.
Adjust weight with Glycerine 99%.
Unload final product.

COMMENTS

Ensure that pH is between 7.0 and 8.0 before LEVENOL® F-200 addition.
In case of using enzymes, follow supplier recommendations regarding dosage, enzyme stabilizers and formulation procedure. Avoid the usage of Lipases.

COMPONENTS

EMAL® 270D (Sodium Laureth Sulfate, ≈ 70% a.m.): anionic character. Primary surfactant, highly foaming. Good detergent properties.

LEVENOL® F-200 (Glycereth-6 Cocoate, ≈ 100% a.m.): non-ionic character. Mild surfactant with detergent power performance similar or even better than standard non-ionic surfactants. Medium foaming and good hydrotropic & wetting properties that allow the reduction of solvents. Eco-toxicologically friendly. It doesn't need any risk sentences or warnings on its label.

SULFONAX® (Dodecyl Benzene Sulfonic acid, » 94% a.m.): anionic character. Primary surfactant, highly foaming. Good detergent properties.

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