

D-181

HEAVY-DUTY LIQUID DETERGENT

CONCENTRATED (3x)

GUIDELINE FORMULARY

DESCRIPTION

Green concept, low washing temperature
Highly concentrated
Recommended dosage: 35mL product/wash
Without solvents

COMPOSITION

	%
EMAL® 270D ⁽¹⁾	11.5
LEVENOL® F-200	27.5
Coconut Fatty Acid	8.0
NaOH (50%)	Approx. 3.5
Citric Acid (50%)	3.5
Enzymes	q.s.
Chelating agents	q.s.
Optical brighteners	q.s.
KAO Fragrance	q.s.
Dye(s)	q.s.
Preservative	q.s.
Deionized Water	Up to 100

(1) 11.5% of EMAL® 270D (SLES at 70% a.m) can be replaced by 29.8% of EMAL® 227E (SLES at 27% a.m).

TECHNICAL CHARACTERISTICS

Kao Method

APPEARANCE (20°C):	Transparent liquid	KCSA-258
pH (as it is):	8.0 - 8.5	KCSA-014
VISCOSITY BROOKFIELD (20°C,cP):	200 - 300	KCSA-227
SURFACTANT ACTIVE CONTENT (%):	Approx. 50	KCSA-246
STABILITY TEST:	Correct	(1 month 40°C/RT/5°C)

RECOMMENDED OPERATIVE METHOD

Charge water.

Add NaOH and afterwards Coconut Fatty Acid (previously melted).

Blend may be warmed up to facilitate the solubilization of fatty acid.

Continue with the addition of Citric Acid.

Check pH and adjust it between 6.5 - 7.5, if necessary.

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 NaOH.

Adjust weight with Deionized water to 100%.

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.

The information and recommendations in this publication are to the best of our knowledge reliable. However, nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purpose.

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Ref. D09009

(Edited January 2011. Updated version July 2020)



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