

Name NATURALLY DERIVED SULFATE-FREE BODY WASH

No. 1212

Description This sulfate-free formulation contains naturally-derived surfactants. It provides high foam while

conditioning skin.

Formulation INGREDIENTS: % by Weight Functionality

Deionized Water q.s. to 100.00 Primary Surfactant
ALPHA-STEP® PC-48 20.50 Surfactant Blend
STEPAN-MILD® LSB 19.50 Secondary Surfactant

AMPHOSOL® HCG (or AMPHOSOL® HCG-HP) 19.35 Surfactant

LATHANOL® LAL Powder

STEPAN-MILD® GCC

Sodium Chloride

Citric Acid

2.96 Thickener, Conditioning Agent
0.50 Viscosity Adjuster
q.s. pH Adjuster
q.s. Additive

Fragrance, Dye, and Preservative q.s.

Total 100.00

## Procedure

- 1. Add Deionized Water to a suitable vessel equipped with mixing, heating, and cooling capabilities.
- 2. Begin mixing, heating to  $55^{\circ}\text{C}-57^{\circ}\text{C}$  ( $131^{\circ}\text{F}-135^{\circ}\text{F}$ ). Add LATHANOL® LAL Powder. When solution is clear, begin cooling.
- 3. At 44°C-45°C, add ALPHA-STEP® PC-48, STEPAN-MILD® LSB, and AMPHOSOL® HCG (or AMPHOSOL® HCG-HP). Continue cooling to room temperature.
- 4. At 35°C-37°C, add STEPAN-MILD® GCC. Mix well.
- 5. Adjust viscosity with Sodium Chloride and pH with Citric Acid, if necessary.
- 6. Add Fragrance, Dye, and Preservative.

\*Note: When formulating with AMPHOSHOL® HCG-HP, a greater amount of Citric Acid may be needed to adjust the pH within the recommended range as noted, than when formulating with AMPHOSOL® HCG.

Physical Properties

Appearance at 25°C Clear liquid pH. as is 5.4–5.5

Viscosity at 25<sup>o</sup>C, cps 14,500–17,000

Storage/ Stability Freeze/thaw, 3 cycles

1 month at 50°C

Pass

1 month at 4°C

Pass

1 month at 25°C

Pass

Instructions for Use

Squeeze a small amount of product on a wet bath pouf or wash cloth. Apply to the skin, working into a rich lather. Rinse.

External Comment

Marketing Notes: Naturally-derived is defined as derived from biorenewable resource originating from animal, plant or marine feedstock. All Stepan surfactants used in formulations labeled as naturally-derived have a minimum of 50% biorenewable carbon content (based on Stepan's BCI

calculation). BCI = 75. Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. Other ingredients were not evaluated. For further information on Stepan's BCI, visit www.stepan.com. Sulfate-free is defined as not containing Alcohol sulfate or Alcohol ether sulfate as per INCI nomenclature. This definition does not include the inorganic sulfates, e.g. Sodium sulfates, used as processing aids or formed as a residual, impurity or by-product.

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For Additional Assistance For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or 011-334-76-505-100 (Europe).

For ordering assistance, call our Account Service Department at 1-800-457-7673.

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