

FSS Polyglyceryl-3 Oleate

INCI: FSSB8035

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CAS: 9007-48-1



DESCRIPTION

FSS Polyglyceryl-3 Oleate is a mono-ester of oleic acid and a glycerin polymer containing an average of three glycerin units. It is a multi-functional emulsifier providing stable emulsions in intermediate HLB systems where two or more other emulsifiers might be used. FSS Polyglyceryl-3 Oleate requires low usage concentrations of 1.0 - 4.0%. It is capable of creating emulsions with good heat and freeze/thaw stability.

FSS Polyglyceryl-3 Oleate is used in a variety of cosmetic and specialized personal care applications, in particular as an emulsifier for W/O creams with brilliant appearance and pleasant properties. It is also useful in cleanser formulations with oil-to-milk or oil-to-lotion transformative properties.

TYPICAL PROPERTIES

Appearance @ 25°C	Clear to Hazy Amber Liquid
% Moisture	0.1
Acid Value, mg KOH/g	2.0
Saponification Number	143.0
Color, Gardner BYK	4
HLB	6

BENEFITS

- Low HLB nonionic emulsifier
- 100% USDA biobased from natural raw materials
- Viscosity modifier
- Foam enhancer
- PEG-free, EO-free
- Easy to handle liquid form

APPLICATION

- Hand and body lotions
- Oil-to-milk cleansers
- Sunscreens
- Sulfate-free shampoo bars
- Luxury body washes

Oil-to-milk Cleanser

DESCRIPTION

FSS Polyglyceryl-3 Oleate, an oil-soluble emulsifier, transforms the oil into a creamy milk in the presence of water that nourishes your skin as it cleanses. To use, massage onto dry skin, then add water to transform the oil-to-milk before rinsing.

FORMULATION

ORDER	INCI NAME	SUPPLIER	%
1	Vitis Vinifera (Grape) Seed Oil	Formulator Sample Shop	67.30
2	Polyglyceryl-3 Oleate	Formulator Sample Shop	2.50
3	Caprylic/Capric Triglyceride	Formulator Sample Shop	25.00
4	Coco-Caprylate	Formulator Sample Shop	5.00
5	SuperScent, Fragrance Oil, or Essential Oil *Matter of Preference	Formulator Sample Shop	0.20

PROCEDURE

1. Combine ingredients 1 – 5 in order with moderate mixing.
2. Continue mixing until clear and uniform.

TYPICAL PROPERTIES

Appearance	Clear Liquid
pH	6.5 - 7.5
Viscosity	<100 cP

All products should undergo stability testing and Microbial/Challenge Testing. These formulations are intended for use as starting formulas and may be altered as needed.

Shampoo Bar

DESCRIPTION

This eco-conscious shampoo comes to you in a solid bar form, designed to outlast multiple of its bottle counterparts and reduce plastic waste. This sulfate-free bar is pH-balanced and simply prepared with a hot-pour process, featuring FSS Polyglyceryl-3 Oleate for gentle cleansing. To use, simply apply bar to wet hair with a combing/swiping motion and massage into a lather before rinsing. Keep bar dry between uses.

FORMULATION

ORDER	INCI NAME	SUPPLIER	%
1	Cocos Nucifera (Coconut) oil	Formulator Sample Shop	34.50
2	Polyglyceryl-3 Oleate	Formulator Sample Shop	2.00
3	Cetearyl Alcohol	Formulator Sample Shop	33.00
4	Disodium Lauryl Sulfosuccinate, Sodium C14-16 Olefin Sulfonate, Lauramidopropyl Betaine	Formulator Sample Shop	30.00
5	SuperScent, Fragrance Oil, or Essential Oil *Matter of Preference	Formulator Sample Shop	0.50
6	Dye	Dye	qs

PROCEDURE

1. Combine ingredients 1 – 3 and heat to 65 – 70°C.
2. Once melted and uniform, add ingredient 4. Continue mixing until uniform.
3. Add ingredients 5 – 6. Mix until uniform, then pour into desired mold and allow to cool completely.

TYPICAL PROPERTIES

Appearance Solid, Opaque Bar

pH 6.0 - 6.5

All products should undergo stability testing and Microbial/Challenge Testing. These formulations are intended for use as starting formulas and may be altered as needed.