

LOW POLAR ESTER
HIGH POLAR ESTER
PASTE ESTER
EMULSIFYING AGENT
GELLING AGENT
LECITHIN
TOCOPHEROL
VEGETABLE OIL

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NISSHIN Oillio

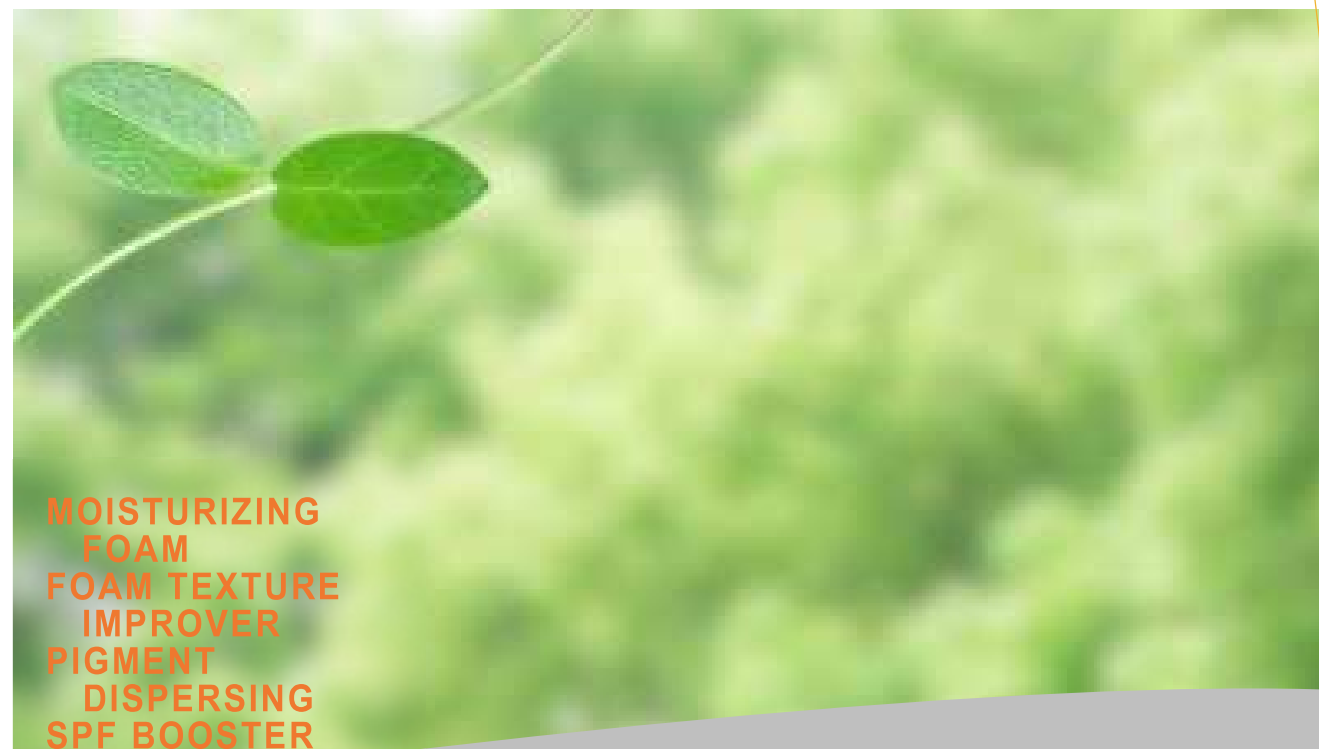
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NISSHIN
Oillio

**VEGETABLE ORIGIN
SMART ESTER**



SALACOS® HS-6C can provide
moisturizing effect and excellent
foam for cleansers.

And it can disperse pigments
uniformly and improve SPF value
in low viscosity formulations,
because of a superior pigment

Multi-functional Ester
SALACOS® HS-6C

31 JULY 2014

1. Moisturizing Foam

POSSIBLE TO MAINTAIN MOISTURE
IN THE SKIN AFTER WASH

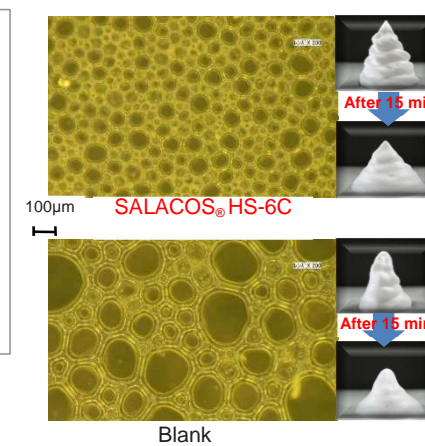
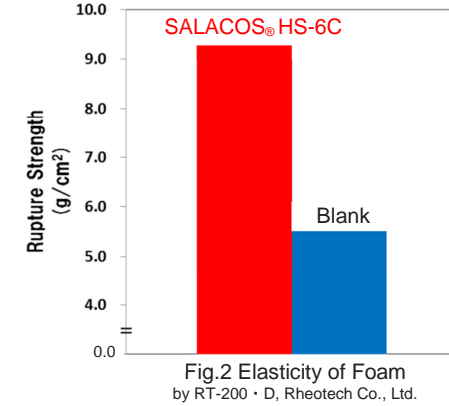
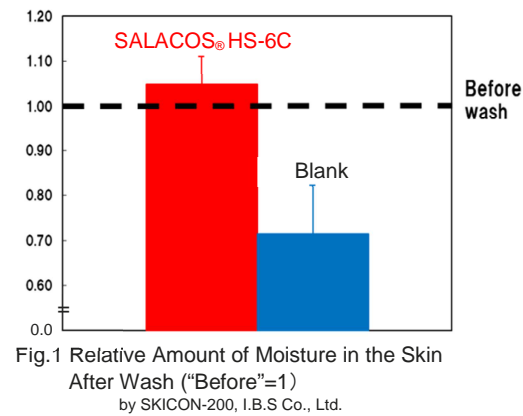
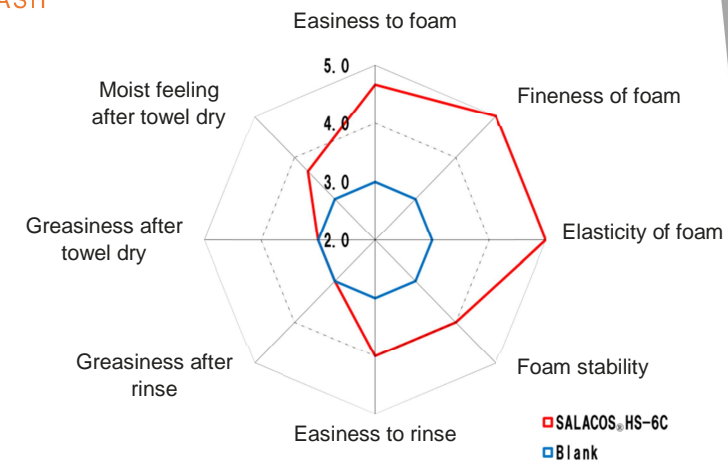


Fig.3 Observation of Foam through the Microscope (x200)



Multi-functional Ester from vegetable



3. Pigment Dispersing

EXCELLENT PIGMENT DISPERSING ABILITY AND SMOOTH
TEXTURE FOR FORMULATIONS CONTAINING PIGMENTS

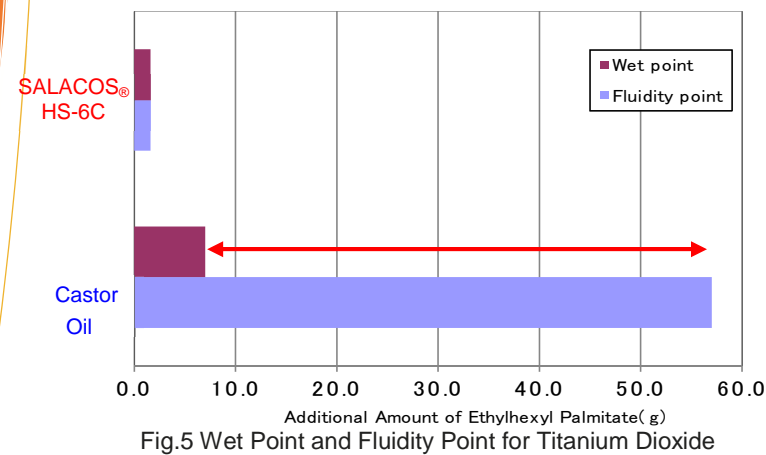


Fig.6 Effect of Dispersing with SALACOS[®] HS-6C in W/O Sunscreen Milk

4. SPF Booster

POSSIBLE TO INHIBIT PRECIPITATION OF PIGMENTS IN LOW-VISCOSITY SUNSCREEN
AND BOOST SPF VALUE WITH IMPROVING PIGMENT DISPERSION

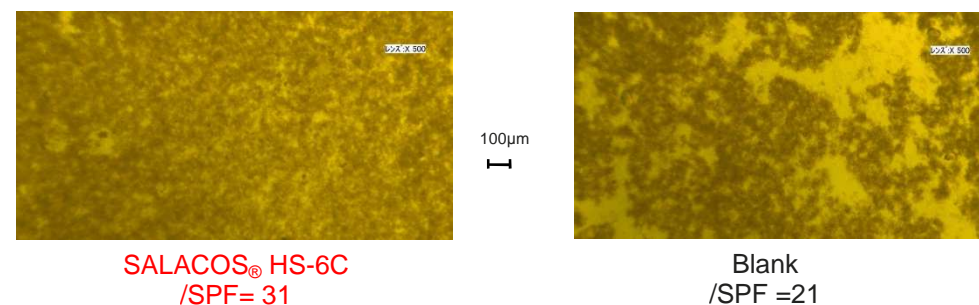
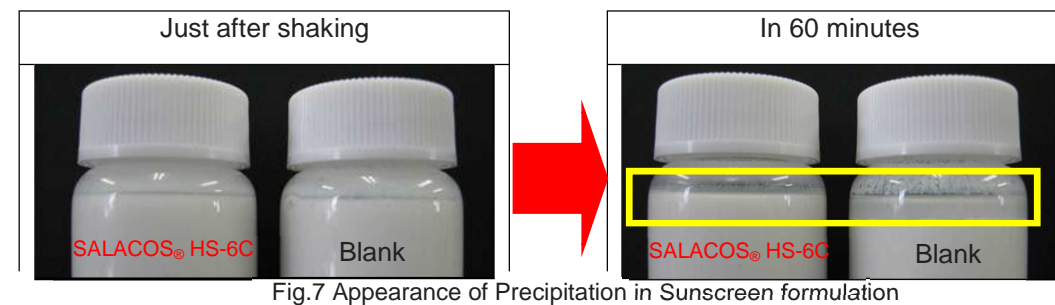


Fig.8 Improvement of Dispersion and SPF (n=4) in Sunscreen formulation (x500)
by UV-1000S, Labsphere Inc.

TEST METHOD

- Fig. 1
1. Cleanse the skin with soap.
 2. Keep the skin at reference condition (20°C, 40%) for 30 minutes.
 3. Measure amount of moisture in the skin (as Before Wash) by a skin hygrometer.
 4. Wash the skin with Creamy Foaming Cleanser with 2% of SALACOS[®] HS-6C or blank.
 5. Keep the skin at reference condition (20°C, 40%) for 30 minutes.
 6. Measure amount of moisture in the skin (as After Wash) and compare it to Before Wash.

- Fig. 2 and 3
1. Weigh 1g of Creamy Foaming Cleanser with 2% of SALACOS[®] HS-6C or blank and 20g of water.
 2. Heat 1 to 30°C and foam it while stirring by a disper mixer (3,000rpm) for 2 minutes.
 3. Measure elasticity of the foam by a rheometer.
 4. Apply the foam on a glass plate and observe its appearance by a microscope (x 200).

- Fig. 4
1. Make foam of Creamy Foaming Cleanser and Blank Foaming Cleanser (replace SALACOS[®] HS-6C by water).
 2. Evaluate the texture based on items of Fig.4

- Fig.5
1. Mix Oil Sample(4g) and Titanium Dioxide(20g) uniformly, and keep it at 25°C.
 2. Add Ethylhexyl Palmitate to 1 while stirring until the mixture becomes a lump. The amount of added Ethylhexyl Palmitate is "Wet Point".
 3. Add Ethylhexyl Palmitate to 2 while stirring until the mixture starts flowing. All the amount of added Ethylhexyl Palmitate is "Fluidity Point".
 4. Evaluate the pigment dispersing ability by Wet Point and the difference between Fluidity Point -Wet Point.

- Fig. 7
1. Shake sunscreen with 1% of SALACOS[®] HS-6C or blank and keep it.
 2. Observe the appearance in 60 minutes.

- Fig. 8
- SPF
1. Apply defined amount of sunscreen on PMMA plate and keep it for 15 minutes.
 2. Measure SPF value by SPF analyzer.
- Appearance
1. Apply sunscreen on a glass plate and observe its appearance by a Microscope (x500).



SALACOS[®] HS-6C

INCI name:
POLYHYDROXYSTEARIC ACID
CAS number:
27924-99-8, 58128-22-6
EC number: 500-140-7
Origin: Vegetable (castor oil)