CREMER Care
Inspired by nature

SOFTIGEN® 701

INCI: Glyceryl Ricinoleate

- Surface active
- Refatting
- Skin protection agent

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1. Description:

SOFTIGEN® 701 is a blend of partial glycerides of the ricinoleic acid.

2. Chemical and Physical Properties:

Tests	Value	Unit
Acid value	max. 3	mg KOH/g
Saponification value	155 - 170	mg KOH/g
Iodine value	70 - 80	mg I_2/100 ml
Iodine color value	max. 6	mg I_2/100 ml
1-Monoglyceride	> 40	%

3. Application:

The consistency of SOFTIGEN® 701 can be liquid to pasty, due to temperature conditions fractionated crystallization can occur. SOFTIGEN® 701 is a fatty, yellowish to white product with a neutral odor. At 30 – 35 °C it is a clear liquid of oily consistency having a viscosity of about 500 – 600 mPas.

SOFTIGEN® 701 is miscible with fats and oils. It es readily soluble in ethanol, diethylether, toluole and methylene chloride. It is water dispersable. Polar binding forces (Van-der-Waals forces) come from the glyceryl hydroxyl groups and from the 12-hydroxy-9-cis-octadecanoic acid (ricinoleic acid).

Because of its purely vegetable origin and manufacturing process, SOFTIGEN® 701 is free from heavy metals, catalyst residues and solvents. It is stabilized with BHT. It contains max. 0,5 % of water.

Cosmetic Functions:

In cosmetic formulations SOFTIGEN® 701 can have the following functions:

Emulsifier/co-emulsifier, refatting agent, dispersing aid.

But the primary function of SOFTIGEN® 701 is a skin protection agent.

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The availability of the free hydroxyl groups of SOFTIGEN® 701 is the reason for its excellent skin protection. SOFTIGEN® 701 is surface-active because of its free hydroxyl groups of mono- and diglycerides. It forms W/O-emulsions and also acts as co-emulsifier in O/W-emulsions.

SOFTIGEN® 701 is well-tolerated by the skin and mucosa. Skin reactivity to aggressive substances is decreased and therefore SOFTIGEN® 701 can be readily used as a skin-protecting agent.

SOFTIGEN 701 is attracted to the adsorption sites on the skin surface, and therefore protects it from being attacked by harmful substances.

SOFTIGEN 701 is used in nearly all skin care preparations such as creams, lotions, bath oils, shaving formulations, refatting soap and shower agents in amounts of 5 – 10%.

In an epicutaneous test and after long use in cosmetic preparations, no irritations were observed.

Thus SOFTIGEN® 701 use is suggested for:

- Deodorants
- Skin care
- Eye cosmetics
- Lip cosmetics
- Body Care
- Sun Care

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4. Formulation Guide

Phase Change O/W Emulsion — 555

Phase A			
	IMWITOR® 375[1]	Glyceryl Citrate/Lactate/ Linoleate/Oleate	3,00
	IMWITOR® 600[1]	Polyglyceryl-3 Polyricinoleate	1,00
	MIGLYOL® 818[1]	Caprylic/Capric/Linoleic Triglyceride	5,00
	MIGLYOL® 812 N[1]	Caprylic/Capric Triglyceride	4,50
	CremerAL 1618 50/50[1]	Cetearyl Alcohol	3,00
	SOFTIGEN® 701[1]	Glyceryl Ricinoleate	1,50
	SOFTISAN® 649[1]	Bis-Diglyceryl Polyacyladipate-2	2,00
	SOFTISAN® 142[1]	Hydrogenated Coco-Glycerides	3,00
	CremerOIL Sunflower Oil[1]	Helianthus Annuus Seed Oil	6,00
	Cetiol MM [2]	Myristyl Myristate	1,00
	Bees Wax	Cera Alba	0,50
Phase B			
	Natrosol Plus 330 CS[3]	Cetyl Hydroxy Ethyl Cellulose	0,45
	CremerGLYC[1]	Glycerine	6,00
	Preservatives		q.s.
	Demin. Aqua	Aqua	ad 100,00
Phase C			
	Tocopherol		0,50
	Fragrance	Fragrance	q.s.
Phase D			
	Sodium Hydroxide 10% in water	Sodium Hydroxide	q.s.

Procedure:

1. Heat Phase A and B separately to approx. 75-80 °C.
2. Add Phase A to Phase B with stirring. Homogenize.
3. Cool Phase A/B with gentle stirring to approx. 30 °C.
4. Add Phase C to the emulsion.
5. Adjust pH value with Phase D to 6,0 - 6,5.

Supplier References:
[1] **Cremer Care**
[2] Cognis
[3] Aqualon

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- containers with 25 kg
- drum with 190 kg

- Store at ambient temperature
- Protect from freezing
- Shelf life 18 months

March 2013

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