



Formulation Guidelines

// THE VALUE OF TRANSPARENCY & TRANSPARENCY AS A VALUE //



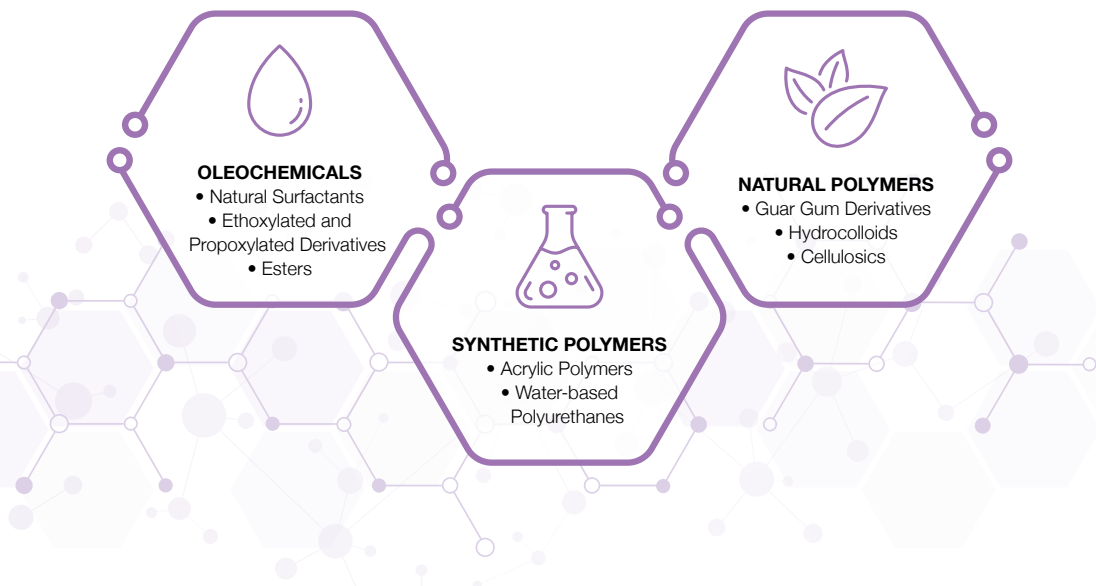
lamberti
chemical specialties

Cosmetics & Personal Care

Lamberti is a manufacturer of chemical specialties focused on customers' needs. Based on well established Technological Platforms (Natural and Synthetic Polymers and Oleochemicals) the Cosmetics & Personal Care portfolio offers traditional products together with patented innovative raw materials for Skin Care, Hair Care, Oral Care, Make Up and Toiletries. All new developments supported by our R&D laboratories are committed towards sustainability and environmentally friendly chemistry, in compliance with regulatory requirements. An international presence based on local Lamberti facilities and a consolidated distributors' network, guarantee a prompt service on global basis. To better focus on formulation design Lamberti has integrated Kalichem who has a well recognized know-how in the world of cosmeceuticals and synergistic ingredients.



Lamberti Technologies for Cosmetics & Personal Care



The value of transparency & transparency as a value

- Clear communication for a conscious choice
- Open collaboration for relations based on trust and common goals
- Crystal-clear formulative solutions for your beauty

VISCOLAM®

Multifunctional
rheology modifiers

ESAFLOR®

Naturally derived
conditioners
and rheology
modifiers

EUCAROL® & ALPICARE

Mild surfactants





ESAFLOR® PFT is a cationic derivative of natural guar gum, obtained through ESAFLOR® ZERO-X technology, a sustainable process patented by Lamberti. Specifically developed for

transparent formulations, ESAFLOR® PFT is ideal for crystal-clear shampoos and 2-in-1 formulations, delivering moderate conditioning, enhanced combability and improved hair feel.

Micellar Shampoo

LAMCOS 158

Phase	INCI name	Trade name	% w/w
Phase A			
1	Aqua (Water)		to 100
2	Disodium EDTA		0.05
3	Hydroxypropyl Guar Hydroxypropyltrimonium Chloride	ESAFLOR® PFT	0.5
4	Citric Acid (20% solution)		to pH ~5.5
5	Cocamidopropyl Betaine (30% a.m.)		9.3
6	Ammonium Lauryl Sulfate (27% a.m.)		45.3
7	Decyl Glucoside (50% a.m.)		3.0
8	Panthenol		2.0
9	Sodium Benzoate		0.3
10	Parfum (Fragrance)		0.3
11	Sodium Chloride		q.s.
12	Citric Acid (20% solution)		to pH ~5.0



Manufacturing procedure:

Add A2 add A3 into water under vigorous stirring at room temperature and mix until dispersed. Adjust pH to ~5.5, then stir for ~20 min to ensure the complete hydration of the polymer. Add remaining ingredients in given order, while stirring. After each addition, stir until homogeneous. Adjust pH to 5.0 with a citric acid solution.

General characteristics:

Appearance: thick clear detergent

pH: ~5.0

Viscosity (Brookfield RVT, 20 rpm, 25 °C): ~3500 mPa*s



VISCOLAM® CL5 responds to the rheological needs of today's toiletries formulations. It allows formulators to achieve innovative textures with elegant smooth rheology. Efficient thickening, suspension properties and superior clarity are granted even at low pH (3.5-6).

ESAFLOR® PFT is a sustainable cationic derivative of natural guar gum, obtained through ESAFLOR® ZERO-X technology. Specifically developed for transparent formulations, ESAFLOR® PFT can be a valuable ingredient for skin cleansing

products, providing formulators with a proper tool to achieve smooth conditioning and excellent skin feel.

In shower gels, liquid soaps and body washes, it ensures skin-conditioning performances, leaving the skin silky and soft. The addition of ESAFLOR® PFT in skin cleansing formulations can also help in reducing negative effects generally linked to harsh soaps and surfactants.

ALPICARE NS is an extremely effective fragrance solubilizer, based on non-ionic surfactants.

Soothing Shower Gel

LAMCOS 159

Phase	INCI name	Trade name	% w/w
Phase A			
1	Aqua (Water)		to 100
2	Glycerin		3.0
3	Disodium EDTA		0.05
4	Water, Acrylates/Laureth-25 Methacrylate Copolymer	VISCOLAM® CL5	7.5
5	Sodium Laureth Sulfate (27% a.m.)		33.3
6	Cocamidopropyl Betaine (30% a.m.)		10.0
Phase B			
1	Aqua (Water)		20.0
2	Hydroxypropyl Guar Hydroxypropyltrimonium Chloride	ESAFLOR® PFT	0.2
3	Citric Acid (20% solution)		to ~pH 5
Phase C			
1	PEG-40 Hydrogenated Castor Oil, Tridiceth-9, Aqua (Water)	ALPICARE NS	1.0
2	Parfum (Fragrance)		0.5
Phase D			
1	Sodium Benzoate		0.4
2	Citric Acid (20% solution)		to ~pH 5
3	Jjoba Esters (beads)		0.5

Manufacturing procedure:

In the main vessel, under stirring, add ingredients A1-A6. Mix well after every addition, until a homogeneous mixture is obtained. In a support vessel, add B2 into water with vigorous stirring; adjust pH to ~5.5, then stir for ~20 min to ensure the complete hydration of the polymer. Add phase B into phase A under stirring. In another support vessel, premix ingredients C1 and C2 until a clear solution is obtained. Add phase C into the main vessel under stirring. Add ingredient D1, then adjust pH to ~5, if necessary, and add D3 with gentle mixing.

General characteristics:

Appearance: thick clear detergent

pH: ~5

Viscosity (Brookfield RVT, 20 rpm, 25 °C): ~6000 mPa*s



ALPICARE GL 612 is a naturally derived, mild anionic surfactant. It derives from L-Glutamic acid, an amino acid naturally present in human hair and skin, and natural fatty acids. It shows good foaming properties, especially at the skin pH, providing a very fine, mousse-like foam. ALPICARE GL 612 is compliant to COSMOS and NATRUE standards.

EUCAROL® AGE/EC MB delivers a soft foam with a fine and creamy texture. It is a α -hydroxyacid derivative from renewable raw materials, suitable for mild and natural formulations. It is manufactured and certified according to the RSPO's Mass Balance supply chain model. It is also compliant to COSMOS and NATRUE standards.

Baby Shampoo

LAMCOS 165

Phase	INCI name	Trade name	% w/w
Phase A			
1	Aqua (Water)		to 100
2	Disodium EDTA		0.05
3	Disodium Cocoyl Glutamate	ALPICARE GL 612	17.0
4	Lauryl Glucoside (~50% a.m.)		20.0
5	Disodium Coco-Glucoside Citrate	EUCAROL® AGE/EC MB	10.0
6	Glycerin		2.5
7	Camomilla Recutita Flower Extract		2.5
8	Sodium Benzoate		0.4
9	Parfum (Fragrance)		0.3
10	Citric Acid (20% solution)		to pH 5.0



Manufacturing procedure:

Under stirring, add ingredients A1-A9 in given order. Stir until homogeneous. Ingredient A4 (Lauryl Glucoside) might require pre-heating in order to be homogeneous and pourable. At the end of the procedure, adjust pH to 5.0 with citric acid: viscosity will develop.

General characteristics:

Appearance: thick clear detergent

pH: ~5.0

Viscosity (Brookfield RVT, 20 rpm, 25 °C): ~1500 mPas



ALPICARE GL 612 is a naturally derived, mild anionic surfactant. It derives from L-Glutamic acid, an amino acid naturally present in human hair and skin, and natural fatty acids. It shows good foaming properties, especially at the skin pH, providing a very fine, mousse-like foam. ALPICARE GL 612 is compliant to COSMOS and NATRUE standards.

CHIMIN L is a surfactant based on natural raw materials. It combines a gentle action on the skin with very good foaming power.

The formulation is a EO-free, mild, viscous cleansing gel. The surfactants' mix, based on ALPICARE GL 612 and CHIMIN L, gives a rich and creamy foam.

Gentle Cleansing Gel

LAMCOS 148

Phase	INCI name	Trade name	% w/w
Phase A			
1	Aqua (Water)		to 100
2	Glycerin		2.5
3	Disodium Cocoyl Glutamate	ALPICARE GL 612	20.0
4	Sodium Lauroyl Sarcosinate	CHIMIN L	12.0
5	Cocamidopropyl Betaine (30% a.m.)		18.0
6	Lauryl Glucoside (50% a.m.)		5.0
7	Sorbitan Sesquioleate		1.0
8	Preservatives		q.s.
9	Parfum (Fragrance)		q.s.
10	Citric Acid (20% solution)		to pH 5.0
11	Sodium Chloride		q.s.



Manufacturing procedure:

Add ingredients A1-A6 in given order with gentle stirring, until a homogeneous solution is formed. Add ingredient A7 and keep stirring until the solution returns clear and viscosity is developed. Add the remaining ingredients in given order. Final viscosity is reached by adjusting pH to 5.0 with citric acid; and it can be further enhanced with the addition of sodium chloride.

General characteristics:

Appearance: clear viscous gel

pH: ~5.0

Viscosity (Brookfield RVT, 20 rpm, 25 °C): ~2000 mPas



EUCAROL® B/M is a mild anionic surfactant, suitable for very mild formulations, that can

also be used as a detoxifier. It is a α -hydroxyacid derived surfactant for sulphate-free formulations.

Oil-To-Milk Cleanser

LAMCOS 116

Phase	INCI name	Trade name	% w/w
Phase A			
1	Paraffinum Liquidum		25.0
2	Prunus Amigdalus Dulcis Oil		26.0
3	Isopropyl Palmitate		17.0
4	Caprylic /Capric Glycerides		17.0
5	C12-13 Pareth-3		10.0
6	Laureth-7 Citrate	EUCAROL® B/M	5.0
Phase B			
1	TEA (99% a.m.)		q.s.



Manufacturing procedure:

Add the ingredients of phase A in given order, while stirring. Adjust pH with Triethanolamine.

General characteristics:

Appearance: clear liquid

pH (10% in water): ~5.5 (neutral skin pH)

Certifications and more

Lamberti SpA, its Business Units and the other companies within Lamberti Group operate according to the highest standards in terms of quality, safety and environmental protection. The company's commitment is recognized by several authorities and certifications.



Work Safety Management System

Certification under OHSAS 18001 for Lamberti SpA.

AEO

Lamberti SpA is certified as an Authorized Economic Operator, according to the European Community Customs Code.

Quality Management System

Certification under ISO 9001:2008 for Lamberti SpA, Unichem SpA and the foreign affiliates in Brazil, Spain, China, India.

EFfCI GMP

Certification under EFfCI GMP (Standard for Cosmetic Ingredients): Viguzzolo, Zanica.

REACH

The Lamberti Group is committed to guarantee the registration and proper management of substances and products marketed, as requested by REACH Regulation (Reg. 1907/2007/EEC).*

Responsible Care

Lamberti SpA is certified under this program.

Environmental Management System

Certification under ISO 14001:2004 for Lamberti SpA.

RSPO

Certification under the RSPO Supply Chain Certification Standard, version June 2017: Viguzzolo.

* For more details about Lamberti certifications see: www.lamberti.com/about_us/certifications.cfm

Lamberti in the World

EUROPE

Italy

Gallarate
(Headquarters &
Commercial Offices)

Albizzate
(Main production facilities,
Technological
research center)

Fiorano Modenese
Nerviano
Rezzato
Trissino
Viguzzolo
Zanica

France

Liergues

Germany

Bammental

Poland

Tomaszów Mazowiecki

Russia

Moscow

Spain

Onda (Castellón)

Turkey

Istanbul

AFRICA

South Africa

Westmead

ASIA

China

Hong Kong
Shanghai

India

Rajkot

Indonesia

Bekasi

South Korea

Seoul

United Arab Emirates

Dubai

AMERICAS

Argentina

Buenos Aires

Brazil

Nova Odessa

Canada

Red Deer

Colombia

Bogotá

Mexico

Querétaro

United States

Chattanooga

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