

Eucarol® AGE

Nature inspired surfactants

Complete biodegradability and natural origins are qualities that are appreciated by an increasing number of customers. These days people look very carefully at the products they use and at their ingredients. Sustainability, safety and quality are paramount. Themes such as “green”, natural and naturally-derived are just some of the claims that are sought-after, even better if coupled with mildness and reassuring short ingredients’ lists.

To the formulators remains the issue of combining mildness and detergent activity.

Lamberti has developed renewable-sources based surfactants to match all these requirements; EUCAROL® Alkyl Gluco Esters (AGE) are anionic surfactants obtained by esterification of coco polyglucose with alpha hydroxy acids. EUCAROL® AGE/EC MB is obtained by esterification with citric acid deriving from citrus fruits, while EUCAROL® AGE/ET MB by tartaric acid, an α -hydroxyacid that occurs naturally in grapes and, it follows, in red wine.

In addition to the traditional citric acid derivative, Lamberti developed EUCAROL® AGE C50 MB, a concentrated version with a modern review of the use of water: the anionic surfactant is diluted in propylene glycol from renewable resources. The limited content of water makes EUCAROL® AGE C50 MB suitable for new formulation trends that aim to limit the water in personal care

applications.

EUCAROL® AGE C50 MB maintains mildness and cleansing properties of traditional EUCAROL® AGE/EC MB.

EUCAROL® AGE are fully based on renewable raw materials. They are compliant to COSMOS cosmetic standards, as well as manufactured and certified according to the RSPO’s Mass Balance supply chain model.

According to definitions of derived natural ingredients from ISO 16128-1 and ISO 16128-2, EUCAROL® AGE are natural derived ingredients with a natural origin > 0.95.

INCI name:

EUCAROL® AGE/ET MB: Sodium

Coco-Glucoside Tartrate

EUCAROL® AGE/EC MB: Disodium

Coco-Glucoside Citrate

EUCAROL® AGE C50 MB:

Disodium Coco-Glucoside Citrate,
Propylene Glycol

Summary of benefits

- mild surfactants with excellent detergent properties
- highly biodegradable, EO-free, sulfate-free ingredients
- delicate and effective cleansing
- soft foam with a fine and creamy texture
- environmentally friendly

Applications

EUCAROL® AGE have an excellent dermatological and active care profile; low eye and skin irritation potential make EUCAROL® AGE the answer to the requirements of sensitive, baby and mature skin. When incorporated into personal wash formulations EUCAROL® AGE reduce TEWL preserving hydration of hair and skin.

Generally EUCAROL® AGE are used as primary or secondary surfactants in ethoxylated- and sulfate-free formulations but due to their extreme mildness they could be added as detoxifier to traditional formulations.

Besides their sensitive nature, the anionic nature adds good detergent and solubilisation properties making them suitable for a large number of toiletries:

- Baby detergents
- Intimate hygiene
- Micellar waters & Make up removers
- Foaming products
- Wet wipes
- Bath and shower gels



NESTLING BODY WASH – LAMCOS172

Phase	Ingredient name	% w/w
A		
1	Aqua (Water)	To 100
2	Glycerin	3.0
3	Ammonium Lauryl Sulfate (30% a.m.)	33.5
4	Sodium Cocoamphoacetate (30% a.m.)	7.5
5	EUCAROL® AGE C50 MB	7.5
6	Preservatives	q.s.
7	Parfum (Fragrance)	q.s.

Manufacturing procedure:

Add the ingredients in given order, under stirring, ensuring that the solution is homogeneous after every addition.

General characteristics:

Appearance: clear yellowish viscous liquid
 Viscosity (Brookfield RVT, 20 rpm, 25°C): ~ 1500 mPa*s
 pH: ~ 5.0

BABY-FOAM SHAMPOO – LAMCOS170

Phase	Ingredient name	% w/w
A		
1	Aqua (Water)	To 100
2	EUCAROL® AGE/ET MB	15.0
3	ALPICARE GL 612	10.0
4	Decyl Glucoside (50% a.m.)	4.0
5	Glycerin	2.0
6	Preservatives	q.s.
7	Fragrance	q.s.
8	Citric Acid, 20% soln.	To pH 5.0

Manufacturing procedure:

Add ingredients in given order, while stirring until a homogeneous solution is obtained. Adjust pH with a citric acid solution. Fill the liquid in a pump foaming bottle: this will transform the liquid into a pleasant foam.

General characteristics:

Appearance: clear yellowish liquid
 pH: ~ 5.0

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CUDDLING SHOWER GEL – LAMCOS164

Phase	Ingredient name	% w/w
A		
1	Aqua (Water)	to 100
2	Disodium EDTA	0.05
3	ALPICARE GL 612	10.0
4	Decyl Glucoside (50% a.m.)	8.0
5	EUCAROL® AGE/EC MB	5.0
B		
1	Aqua (Water)	25.0
2	ESAFLOR® PFT	0.5
3	Citric Acid, 20% soln.	To pH 5.5
C		
1	Glycerin	2.0
2	Xanthan Gum	0.3
D		
1	Parfum (Fragrance)	q.s.
2	Preservatives	q.s.
3	Citric Acid, 20% soln.	To pH 5.0

Manufacturing procedure:

In the main vessel, mix ingredients A1-5 in the given order, under gentle stirring. In a side vessel, disperse B2 in water, correct pH to 5.5 and keep under good stirring for ~20 mins to ensure the complete hydration of the polymer. In a second side vessel, disperse C2 into glycerin until a homogeneous slurry is formed. Add phase B into phase A and mix until homogeneous. Then add phase C to A+B and keep stirring until homogeneous. Add ingredients of phase D and correct pH to 5.0.

General characteristics:

Appearance: clear yellowish viscous liquid
 Viscosity (Brookfield RVT, 20 rpm, 25°C): 1000-1500 mPa*s
 pH: ~ 5.0

