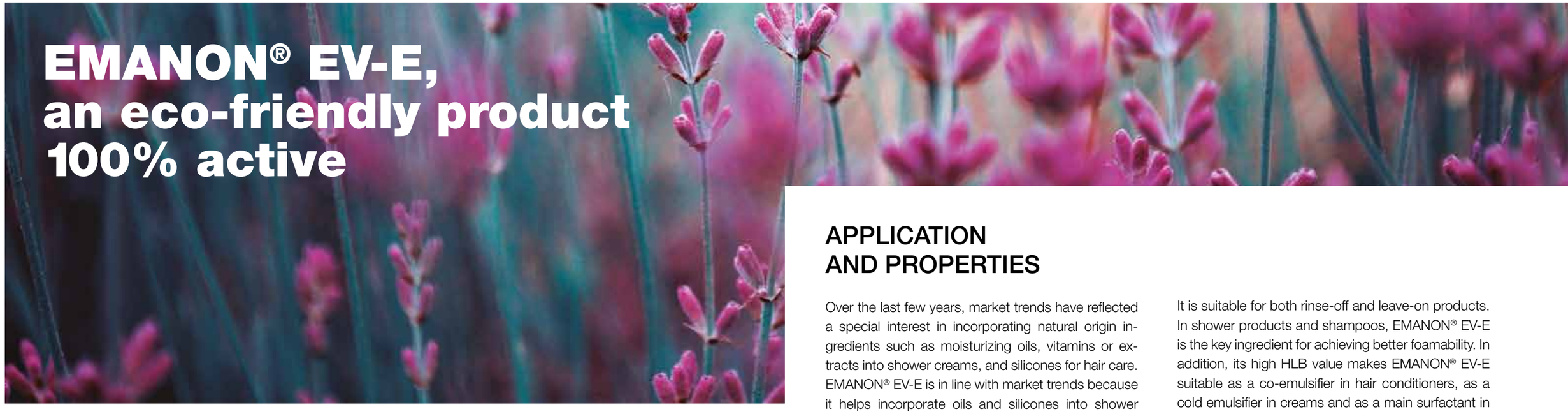
EMANON® EV-

100% ACTIVE
BIODEGRADABLE
SKIN CLEANSER
COLD EMULSIFIER
FOAM BOOSTER

ECO-FRIENDLY AND VEGETABLE-ORIGIN SURFACTANT FOR PERSONAL CARE APPLICATIONS

KAO SURFACTANTS TECHNOLOGY AT YOUR SERVICE

kao



EMANON® EV-E, an eco-friendly product 100% active

EMANON® EV-E is a water-soluble non-ionic surfactant. Its INCI name is Glycereth-7 Caprylate/Caprate.

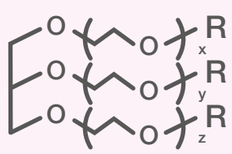
This ethoxylated glycerine derivative has a very high HLB value (HLB 16), which confers very good solubility in water, and has a good eco-toxicological profile.

EMANON® EV-E is a vegetable-based, eco-friendly surfactant, being both biodegradable and with low aquatic toxicity. The product is 100% active, so it is exempt from solvents, thus reducing the carbon footprint related to packaging material, logistics, residues and transportation.

MAIN FEATURES

- Environmentally friendly
- Vegetable origin
- Liquid
- 100% active
- No water or solvents (VOCs)
- Free of by-products
- Colorless and odorless
- Water-soluble
- Unpreserved
- Biodegradable
- HLB ≈ 16

EMANON® EV-E. Glycereth-7 Caprylate/Caprate



x+y+z = 7
R= H or R'-CO⁻
R'-CO⁻= Caprylic/ Capric chain

APPLICATION AND PROPERTIES

Over the last few years, market trends have reflected a special interest in incorporating natural origin ingredients such as moisturizing oils, vitamins or extracts into shower creams, and silicones for hair care. EMANON® EV-E is in line with market trends because it helps incorporate oils and silicones into shower creams and shampoos, improving the foam and delivering active agents to the skin and hair.

It is suitable for both rinse-off and leave-on products. In shower products and shampoos, EMANON® EV-E is the key ingredient for achieving better foamability. In addition, its high HLB value makes EMANON® EV-E suitable as a co-emulsifier in hair conditioners, as a cold emulsifier in creams and as a main surfactant in wet wipes and make-up removers.

MAIN APPLICATIONS

BATH PRODUCTS	HAIR CARE	SKIN CARE
Foam Booster	Foam Booster	Cold Emulsifier
Foam Creaminess	Better Combability	Facial Cleanser
Cleansing & Moisturizing	Cleansing	
Oil deposition	Polymer Deposition	

EMANON® EV-E is a non-viscous liquid at room temperature and is therefore very easy to handle.

SHOWER PRODUCTS

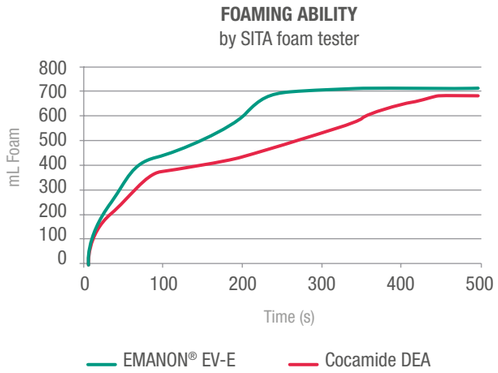
SHOWER CREAM

Shower cream is a rising concept in today's market. These products have a high oil content, the advantage being that the user does not need to apply cream afterwards. The main drawback is the poor foamability due to the presence of oil. By using EMANON® EV-E as a non-ionic surfactant in the formulation, richer and creamier foam is obtained in comparison to other co-surfactants and the skin becomes smoother.

SHOWER CREAM HIGH FOAM QUALITY	Ref. C-158 Standard %	Ref. C-193 High oil content %	Ref. C-195 RT Process %
EMAL® 270D Sodium Laureth Sulfate	14.3	14.3	14.3
BETADET® HR Cocamidopropyl Betaine	10	10	10
AKYPO® FOAM RL40 Sodium Laureth-5 Carboxylate	4.8	-	4.8
EMANON® EV-E Glycereth-7 Caprylate/ Caprate	3.5	10	3.5
AMIDET® N PEG-4 Rapeseedamide	1	-	1
KALCOL® 6850 Cetearyl Alcohol	0.5	0.5	-
Glycerin	3	-	3
Sunflower Oil	10	40	10
Lauric Acid	1.5	1.5	-
Stearic Acid	0.5	0.5	-
Xanthan Gum	-	-	0.2
Additives*	q.s.	q.s.	q.s.
Deionized Water	Up to 100	Up to 100	Up to 100

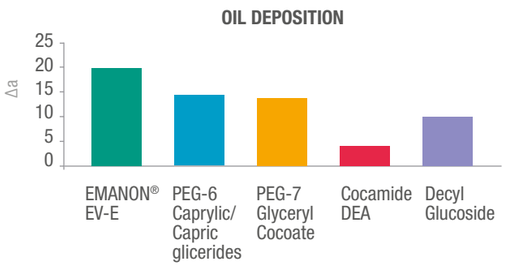
*Additives: Perfume, dyes, preservatives, etc.

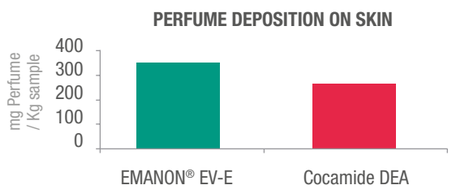
The better foamability of EMANON® EV-E versus Cocamide DEA is confirmed by foaming tests.



Foamability of Shower Cream C-158 (at 5% active matter solution prepared with two different non-ionic surfactants)

The results of the sensory test show that EMANON® EV-E performs better, especially in foamability and smoothness, than Cocamide DEA and even than the market product reference. The improved smoothness is related to the oil deposition which is higher using EMANON® EV-E than with other non-ionic surfactants. As perfumes are made of oils, their deposition too is enhanced.





SHOWER OIL PATENT FILED

Shower oils are clear shower products with a high oil content (>35%) and a low amount of water (<5%), that improve skin condition while showering by depositing oil on the skin.

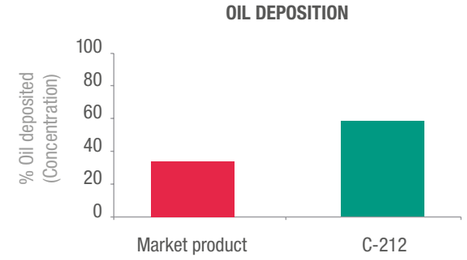
Even though the use of these products is not extensive worldwide, it has been growing over the last few years. The main characteristics of this kind of products are the high oil deposition on the skin, resulting in improved skin condition, but also poor foamability due to the amount of oils in the formulation.

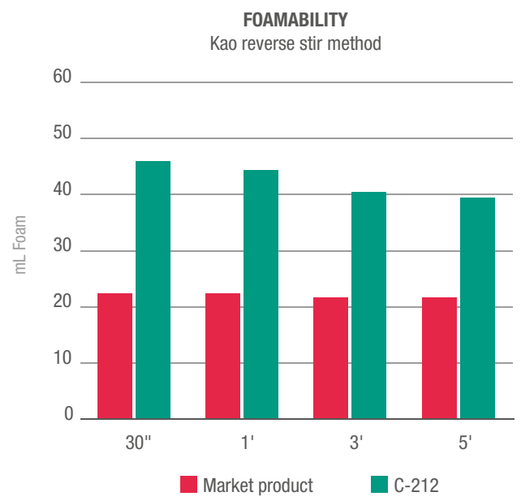
Ref. C-212 SHOWER OIL	%
EMANON® EV-E Glycereth-7 Caprylate/Caprate	23.3
AKYPO® RLM 45 CA Laureth-6 Carboxylic acid	19.3
AMIDET® N PEG-4 Rapeseedamide	12
Castor Oil	30
Soybean Oil	9
Propylene Glycol	2
Additives*	q.s.
Deionized Water	Up to 100

*Additives: Perfume, dyes, preservatives, etc.

Kao has developed a shower oil (C-212) with a combination of EMANON® EV-E and AKYPO® RLM 45CA. In this formulation, while EMANON® EV-E increases foam ability and oil deposition in the presence of high amounts of oils, AKYPO® RLM 45CA enhances the cleansing effect and reduces the irritation of the product thanks to its very mild profile. The micro-emulsification of all the ingredients of the composition results in a very stable formulation.

As shown in the graphics below, by using a mix of AKYPO® RLM 45CA and EMANON® EV-E in a specific ratio, the foamability is greatly increased and the oil deposition on skin is much higher compared to a market product reference.





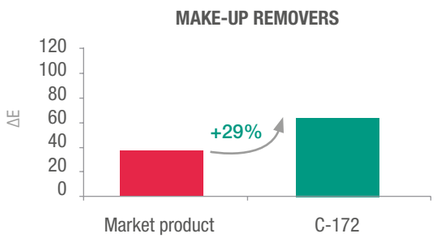
SKIN CLEANSING

MAKE-UP REMOVERS

The addition of EMANON® EV-E to make-up removing formulations, as with wet wipes, enhances the cleansing speed and the lack of residue. EMANON® EV-E is also effective in removing other kinds of make-up like lipstick, lash mascara and eyeliner.

Ref. C-172

MAKE-UP REMOVER	%
EMANON® EV-E Glycereth-7 Caprylate/Caprate	6
KALCOL® 6850 Cetearyl Alcohol	3
KAOPAN® SP-010 Sorbitan Oleate	3
Glycerin	3
Mineral Oil	2
Isopropyl Myristate	1
Carbopol® Ultrez 10 Carbomer	0.25
Additives*	q.s.
Deionized Water	Up to 100

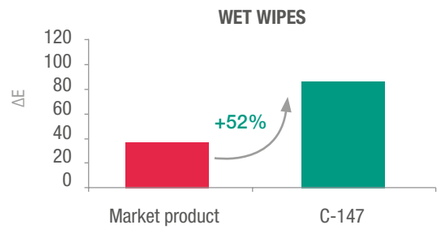


WET WIPES

Nowadays, wet wipes are increasingly present in everyday life thanks to their ready-to-use characteristics. The addition of EMANON® EV-E to formulations for wet wipes enhances the cleansing speed and clearly reduces the residue on the skin.

Ref. C-147

FACE CLEANSER	%
EMANON® EV-E Glycereth-7 Caprylate/Caprate	5
Glycerin	3
FINDET® ARH-52 PEG-40 Hydrogenated Castor Oil	2
Aloe Vera Gel Aloe Barbadensis Leaf Juice	0.25
Additives*	q.s.
Deionized Water	Up to 100



SKIN CARE

EMANON® EV-E acts as a cold emulsifier. Combined with a low HLB surfactant, such as sorbitan monoesters, very small droplet size emulsions are formed with very good stability.

Ref. C-194

HAND CREAM	%
Glycerin	5
EMANON® EV-E Glycereth-7 Caprylate/Caprate	2
KAOPAN® SP-010 Sorbitan Oleate	0.5
Mineral Oil	8
Waglinol® 6014 Isopropyl Myristate	7
Dub® Zenoat Dicaprylate Propanediol	1
Tocopheryl Acetate	1
Carbopol® Ultrez 10 Carbomer	0.2
Additives*	q.s.
Deionized Water	Up to 100

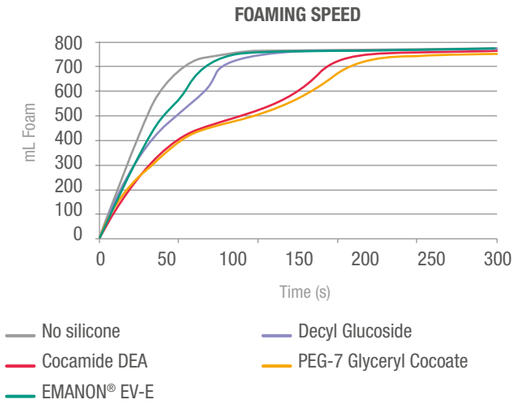
*Additives: Perfume, dyes, preservatives, etc.

HAIR CARE

Conditioning shampoos contain emulsified hydrophobic silicones which have negative effects on foamability. When EMANON® EV-E is incorporated into this type of formulation, it enhances the deposition of conditioning agents such as polymers and silicones on hair, maintaining high foam volume.

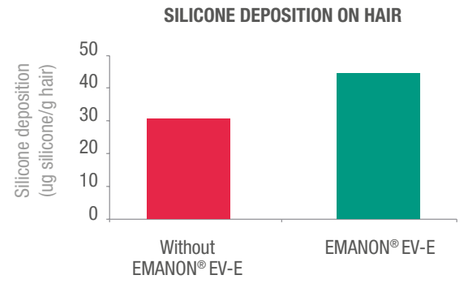
Ref. C-159

CONDITIONING SHAMPOO	%
EMAL® 270D Sodium Laureth Sulfate	14.7
BETADET® HR Cocamidopropyl Betaine	10
BETADET® S-20 Lauryl Hydroxysultaine	3.9
DANOX® PL-10 Pearlizing agent	3
EMANON® EV-E Glycereth-7 Caprylate/Caprate	2
Dow Corning® 193 Fluid PEG-12 Dimethicone	0.5
Jaguar® C-17 Guar Hydroxypropyl Trimonium Chloride	0.3
Additives*	q.s.
Deionized Water	Up to 100



Foaming Speed of Conditioning Shampoo with 10% a.m. (active matter) of SLES, 3% a.m. of CAPB, 1% of Dimethicone and 4% a.m. of non-ionic surfactant.

*Additives: Perfume, dyes, preservatives, etc.



EMANON® EV-E can be used in hair care products as a co-emulsifier in hair conditioners. EMANON® EV-E decreases the combing force in comparison with other non-ionic co-emulsifiers, resulting in better conditioning and improved sensory attributes.

Ref. C-144

HAIR CONDITIONER	%
KALCOL® 6850 Cetearyl Alcohol	3
TETRANYL® CO-40 Dioleoylethyl Hydroxyethylmonium Methosulfate	1.9
EMANON® EV-E Glycereth-7 Caprylate/Caprate	0.5
Additives*	q.s.
Deionized Water	Up to 100

MILDNESS

All formulations shown in this leaflet are classified as NON-IRRITANT, according to the Zein Test (Skin irritation) and RBC Test (Eye irritation).

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eco together

Enriching lives,
in harmony with nature.

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