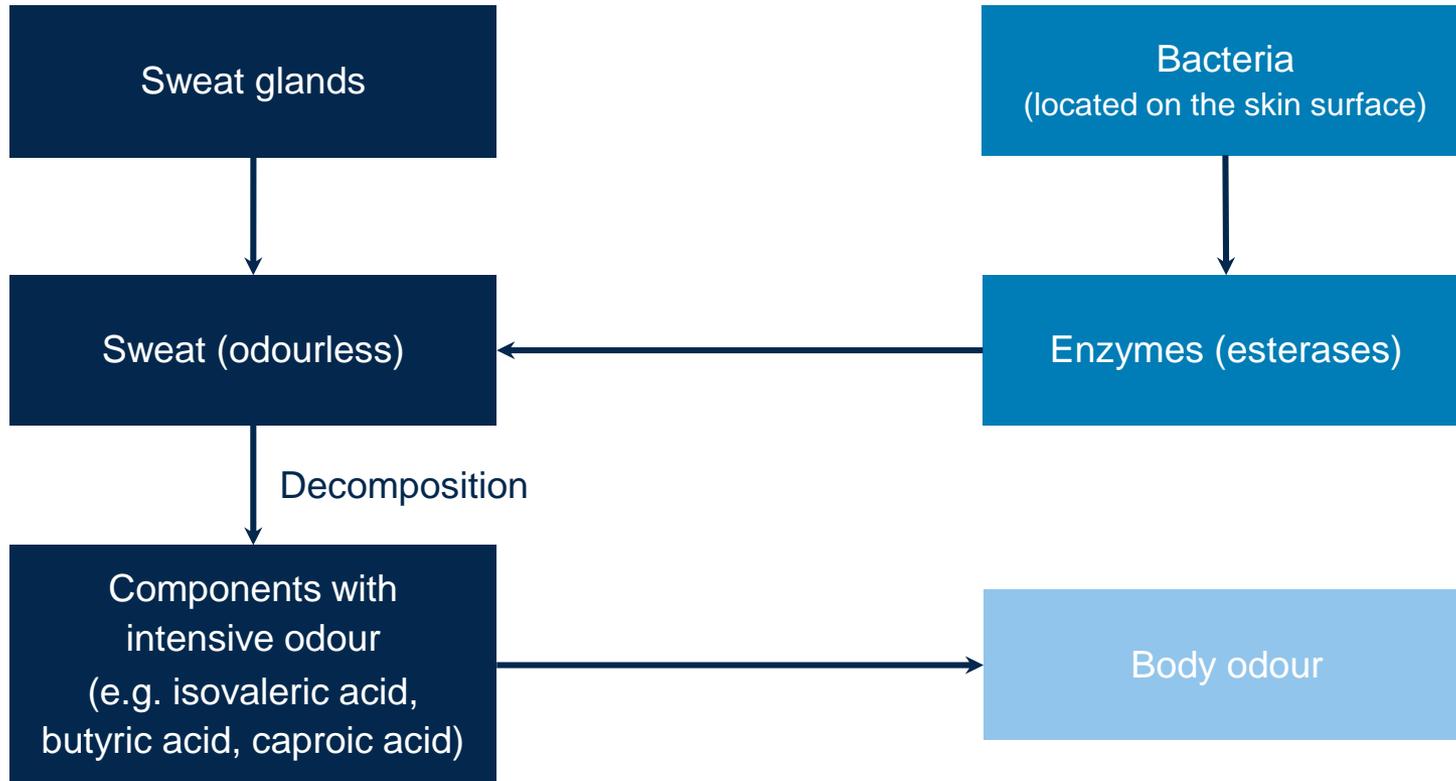


COSMACOL ELI

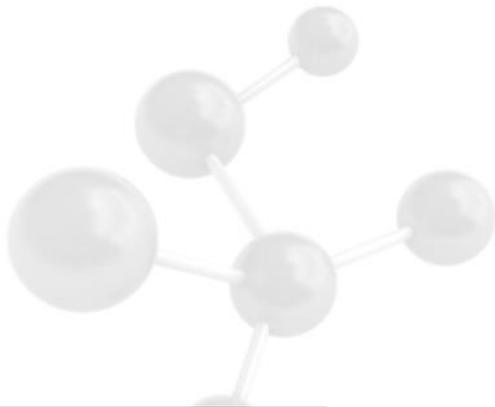


A Mild Body Odour Reducing Agent for Antiperspirants/Deodorant

How Does Body Odour Arise?



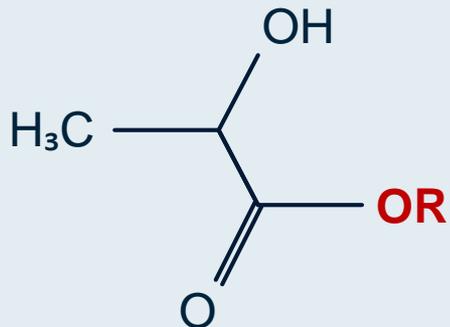
Active agent	Function
Odour masks	Blanket over the body odour
Antimicrobials	Suppress the decomposition of sweat by destroying the bacteria
Enzyme inhibitors	Suppress the decomposition of sweat by inhibiting the enzyme activity
Antioxidants	Prevent oxidation of sweat components
Antiperspirants	Suppress the formation of sweat



Active Agents in Antiperspirants/Deodorants (part II)

Active agent	Effect up to 6 hours	Long lasting effect	Impact on skin	Raw material cost
Perfumes (odour mask)				
Triclosan (antimicrobial)				
Triethyl Citrate (enzyme inhibitor)				
Tocopherol (antioxidant)				
Aluminium Chlorohydrate (antiperspirant)				

Chemical structure



R = mono-branched primary C12-C13-Alkyl

COSMACOL ELI is the lactic acid ester of mono branched primary C12/13 alcohol isomers

INCI:

C12-13 Alkyl Lactate

Properties:

Appearance at 25°C: clear liquid

Sniff-test and Microbial Evaluation – COSMACOL ELI vs Triclosan



Tested formulations:

Ingredient	% by mass	
Ethanol, 95%	59.25	58.0
Buffer*	40.5	40.0
Triclosan	0.25	-
COSMACOL ELI	-	2.0
pH	5.5	5.5

* Aqueous solution of 0,7% citric acid and 0,2% sodium hydroxide

12 volunteers (age: 22-46; 2 male, 10 female)

Test parameter: axillary odour (olfactory evaluation)

Pre-treatment:

Starting 7 days before treatment + treatment:

- Not using deodorants, antiperspirants, fragrances, medicines
- Wash the axillary with a non-perfumed soap

Starting 3 days before treatment + treatment:

- Not wearing synthetic fabrics
- Not shaving the armpit
- Not eating spicy food

Treatment (15 days)

- Not swimming
- Not drinking alcohol
- Not using cosmetics containing fragrances

Olfactory evaluation

- Start, 6 and 24 hours after the last treatment
- Carried out by 3 experts
- Scores (0-10)
 - 0 = no smell
 - 5 = medium smell
 - 10 = strong smell

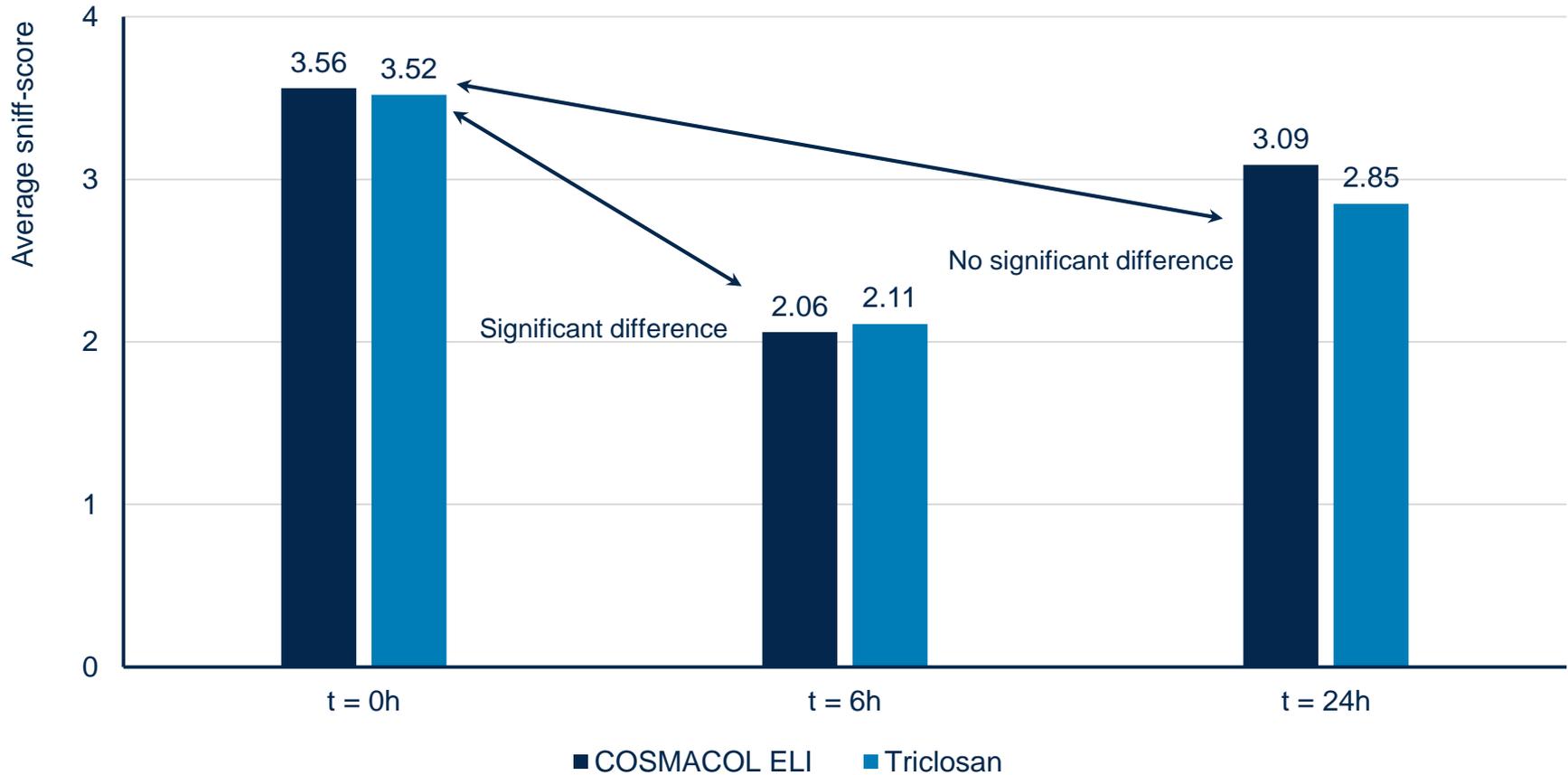
Test and statistics:

Institute of Skin and Product Evaluation/Milano (Italy)

Sniff Test (Results)



No significant differences between both samples at the corresponding times have been observed



COSMACOL ELI reduces the body odour like Triclosan at least for 6 hours

Antimicrobial Activity (Experimental Procedure)



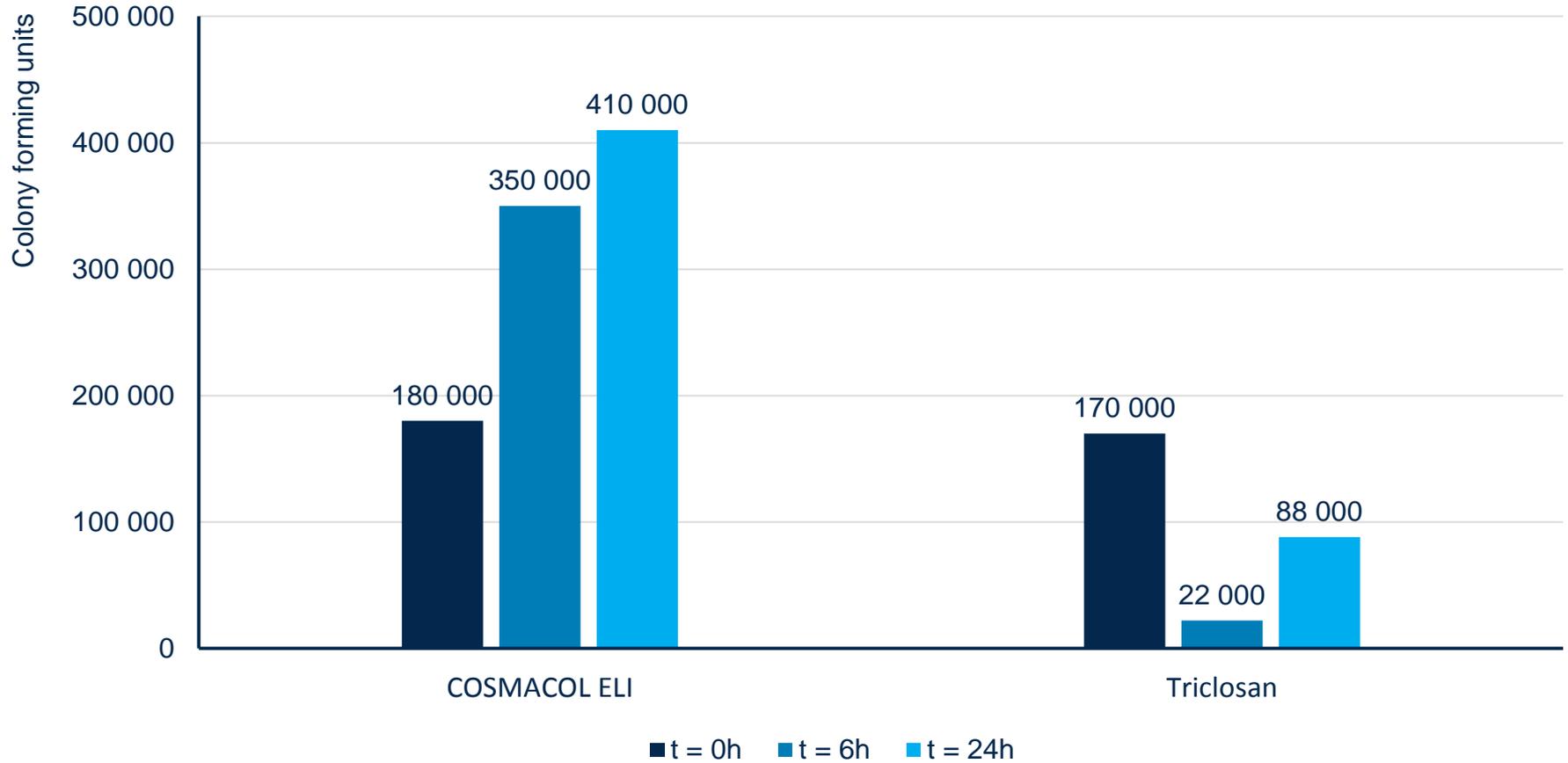
During the sniff-test (0, 6 and 24 hours after the last treatment) a defined skin area of the axillary was scraped off and added to a physiological solution

This solution was placed on an agar plate and incubated at 37°C for 72 hours

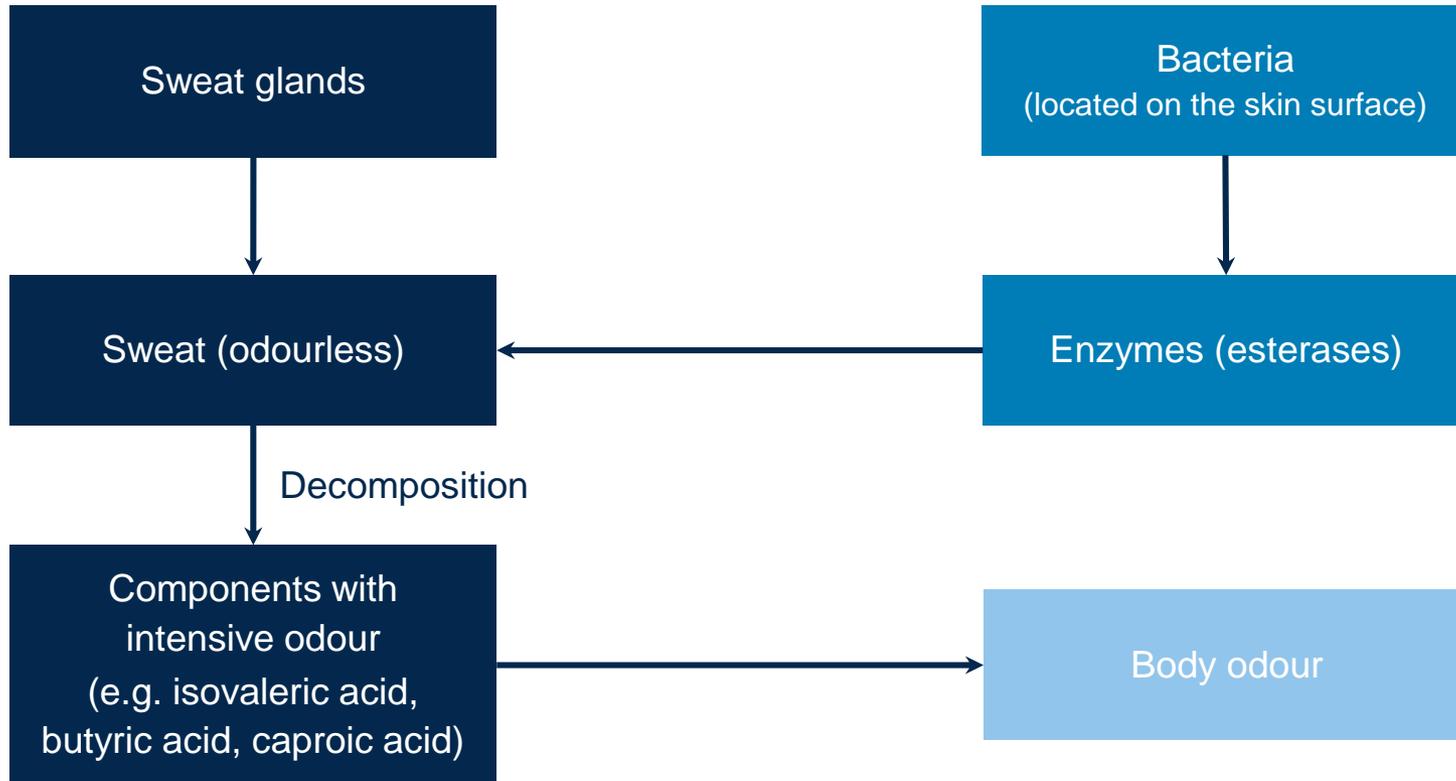
Afterwards the colony forming units were counted



Antimicrobial Activity (Results)



Hypothesis on How COSMACOL ELI Acts



* Enzymes decompose COSMACOL ELI instead of sweat components resulting in the formation of lactic acid and fatty alcohol which are used as nutrients by the bacteria

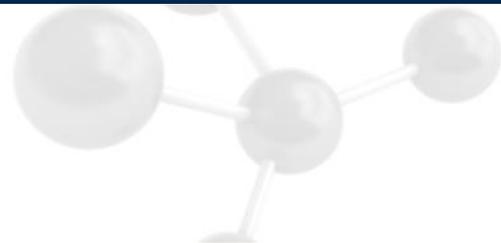
COSMACOL ELI is a body odour reducing agent

COSMACOL ELI is not an anti-microbial

It is evident that COSMACOL ELI suppresses the decomposition of sweat

An additional test has shown that COSMACOL ELI is a sebum regulating emollient

COSMACOL ELI is a mild body odour reducing agent which allows to reduce the amount of commonly used actives in all kinds of antiperspirants and deodorants giving them more value



Antiperspirant Roll-On



Trademark	*) INCI name	Wt [%]	Function
A Demin. water	Aqua	7.5	
Glycerine	Glycerin	4.0	Moisturizing agent/anti-freeze
B CERALUTION H	1 Behenyl Alcohol (and) Glyceryl Stearate (and) Glyceryl Stearate Citrate (and) Disodium Ethylene Dicocoamide PEG-15 Disulfate	0.5	Gel network emulsifier
COSMACOL ELI	18 C12-13 Alkyl Lactate	2.0	Body odour control/moisturiser
COSMACOL OE	1 Dicaprylyl Ether	2.5	Good spreading emollient
PARAFOL 14-97	1 Tetradecane	1.5	Good spreading emollient
MARLOSOL ST 9150 P	1 PPG-15 Stearyl Ether	1.5	Polar emollient/skin conditioner
C Demin. water	Aqua	Add to 100	
Structure XL	67 Hydroxypropyl Srach Phosphate Ester	4.0	Thickening agent
D Locron L	8 Aluminium Chlorohydrat	20.0	Antiperspirant agent
E Preservative		q.s.	
Perfume	Parfum (EU)/fragrance (US)	q.s.	

Processing:

1. Heat phase (A) and phase (B) separately to 65°C
2. Add phase (B) to phase (A) and homogenise until the median particle size is <0.40µm
3. Cool to 35°C under gentle stirring and add consecutively phase (C), phase (D) and phase (E) and stir gently for a while

Antiperspirant Spray



Trademark	*) INCI name	Wt [%]	Function
A Demin. water	Aqua	7.5	
Glycerine	Glycerin	4.0	Moisturising agent/anti-freeze
Keltrol CG-BT	5 Xanthan Gum	0.1	Thickening agent/hydrocolloid
B CERALUTION ES	1 Ceteareth-25 (and) Disodium Ethylene Dicocoamide PEG-15 Disulfate	1.0	Emulsifier and dispersant/for high filter efficiency (UV)
COSMACOL ELI	18 C12-13 Alkyl Lactate	2.0	Body odour control/moisturiser
COSMACOL OE	1 Dicaprylyl Ether	1.0	Good spreading emollient
PARAFOL 14-97	1 Tetradecane	1.0	Good spreading emollient
MARLOSOL ST 9150 P	1 PPG-15 Stearyl Ether	1.0	Polar emollient/skin conditioner
C Demin. water	Aqua	Add to 100	
Navance instant maize	41 Zea Mays (corn) starch	4.0	Rheology modifier
D Locron L	8 Aluminium Chlorohydrat	20.0	Antiperspirant agent
E Preservative		q.s.	
Perfume	Parfum (EU)/fragrance (US)	q.s.	

Processing:

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COSMACOL ELI



Thank You