

# **E**leen

## **Synergistic Green Solutions COSMOS for self-preserved cosmetics**

✓ **Bio-sourced**

✓ **Skin-friendly**

✓ **Bio-degradable**

✓ **Eco-certified**



**COSMOS  
APPROVED**

**MINASOLVE**  
BIO-INGREDIENTS FOR YOUR APPLICATIONS

**green  
solving  
attitude.**

## Sustainability – Does it matter for us ?!

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**We are all consumers ...**

*... and if we consume a  
non-renewable resource today ...,*

*... it will not be available  
for the next generation tomorrow !*

**It's about our children !**

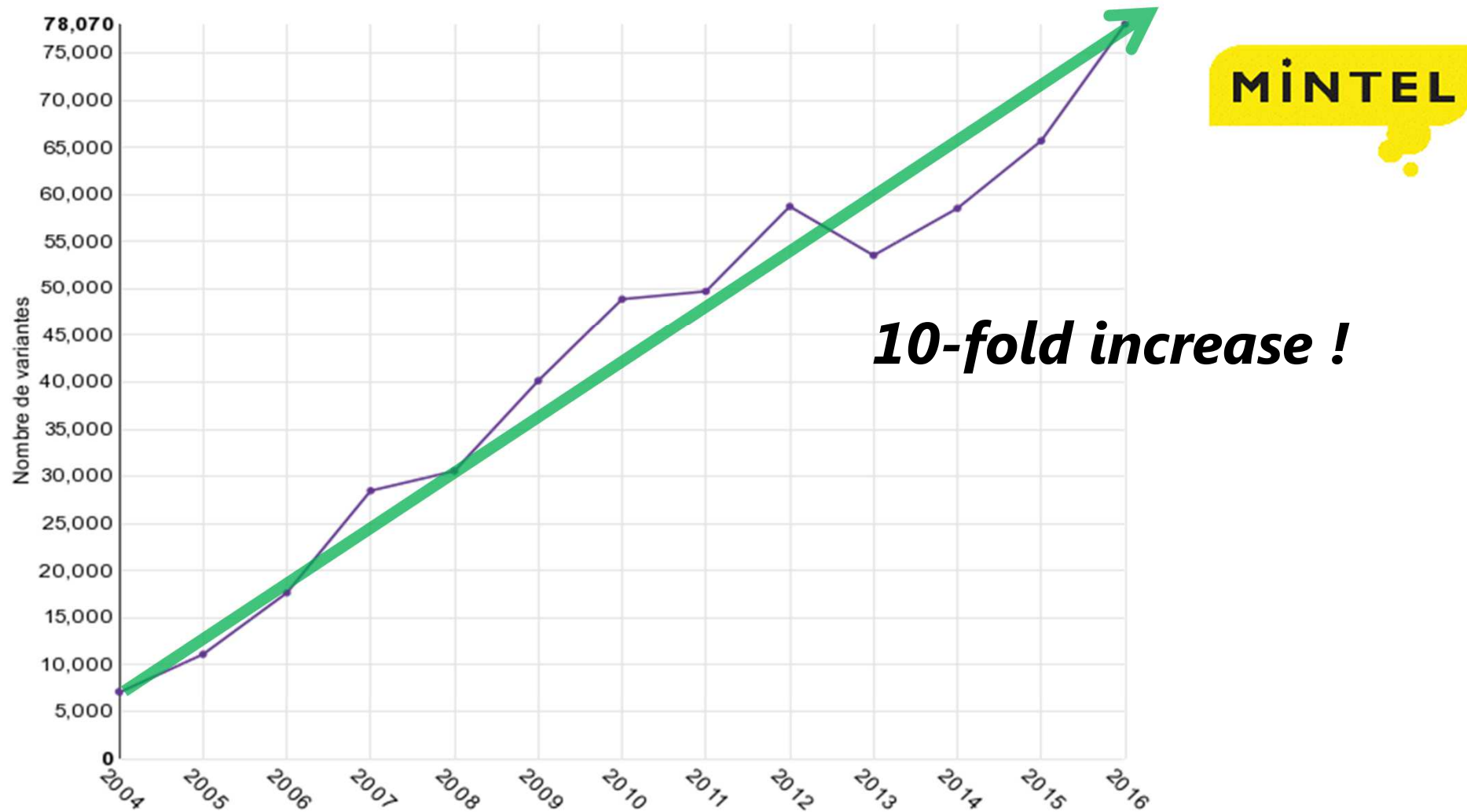
# Modern Personal Care Formulations

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- 1. Consist of sustainable ingredients,**  
bio-degradable / supporting local communities / valorizing waste
- 2. Contain only skin-friendly ingredients,**  
and are free from allergens, harsh preservatives etc.
- 3. Are holistically designed (clean / no-nonsense),**  
with **multifunctional ingredients** taking care of the skin  
and keeping the product inherently stable  
and making the product attractive.

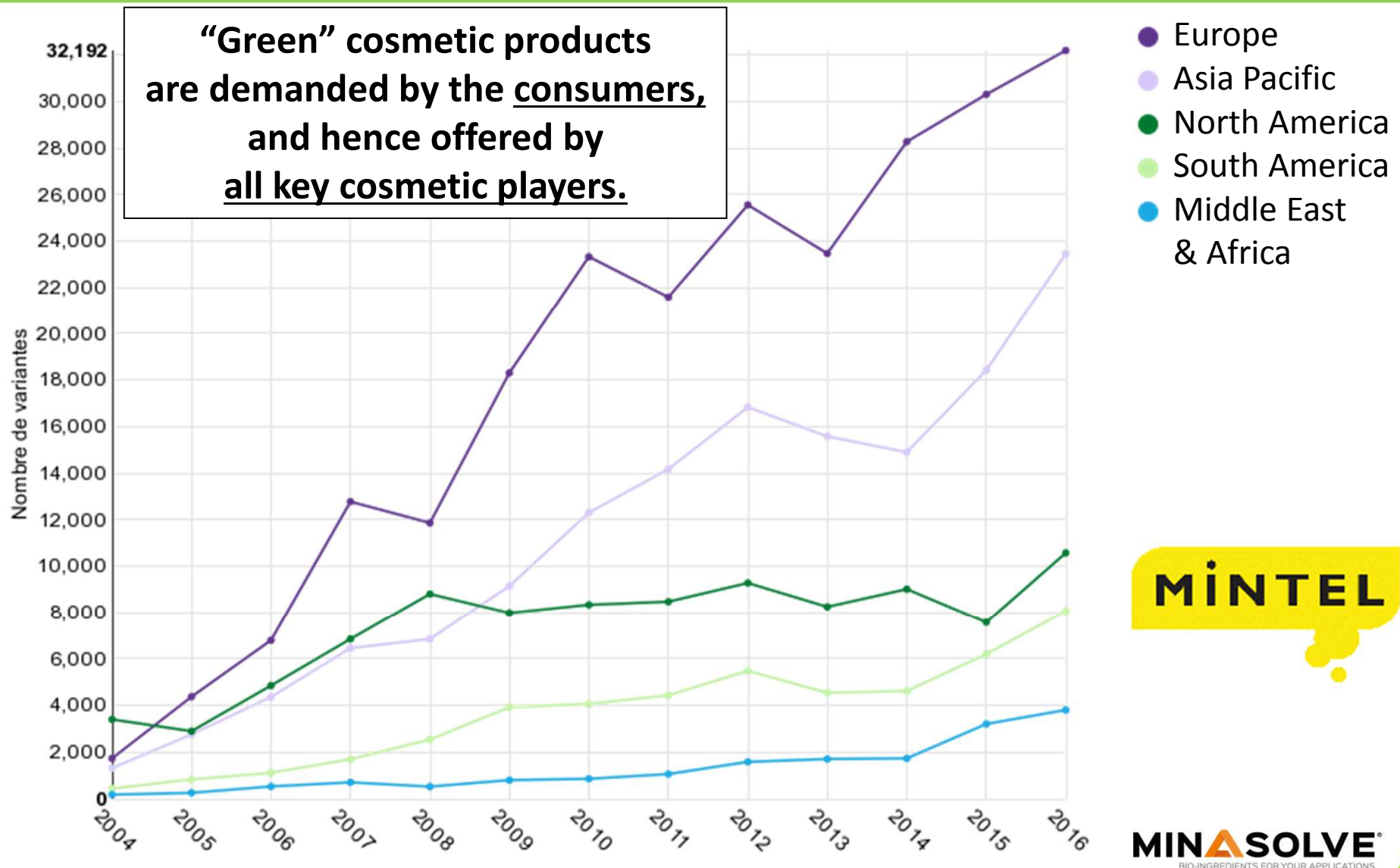
# Sustainability – a major trend in cosmetics

Cosmetics launched with claims “Ethical / Environmentally Friendly”



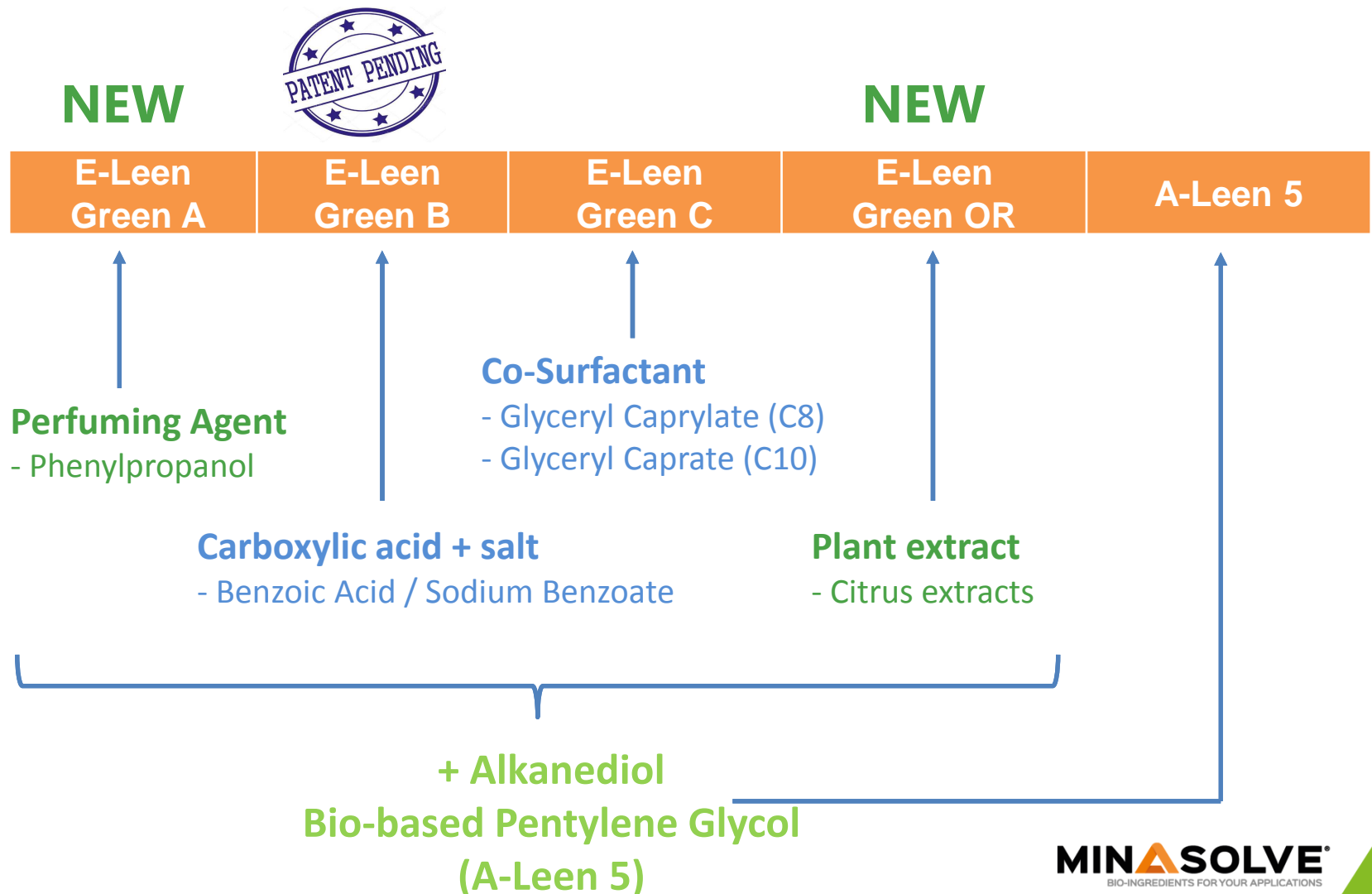
# Sustainability – a worldwide trend

Cosmetics launched with claims “Ethical / Environmentally Friendly”



# E-Leen – Synergistic Green Solutions

## A unique toolbox for self-preserved formulations



# E-Leen – Synergistic Green Solutions

## A unique toolbox for self-preserved formulations

Solutions based on **A-Leen 5 (bio-based pentylene glycol)**

	E-Leen Green A	E-Leen Green B	E-Leen Green C	E-Leen Green OR	A-Leen 5
INCI names	Pentylene Glycol, Phenylpropanol	Pentylene Glycol, Water, Sodium Benzoate, Benzoic Acid	Pentylene Glycol, Glyceryl Caprylate/ Caprate	Pentylene Glycol, Glycerin, Bioflavonoids	Pentylene Glycol
pH range of activity	unlimited	2 to 6	4 to 7	3 to 6.5	unlimited
solubility in water	soluble at $\leq 3\%$	soluble	dispersible	soluble	soluble
ECOCERT/ COSMOS	COSMOS	COSMOS	COSMOS	COSMOS	COSMOS
Natural Origin Index (ISO 16128-2)	1	0.88	1	1	1
Preservative free	yes	no	yes	yes	yes
Use of level	1.0 – 3.0%	1.0 – 3.0%	1.0 – 3.0%	1.0 – 3.0%	0,5 – 5%
Odor	faint, aromatic	faint	faint	faint	odorless
Microbicide effect	Yeast / mold / bacteria	Yeast / mold / bacteria	Yeast / (mold) / bacteria	Yeast / (mold) / bacteria	Yeast / mold / bacteria

# E-Leen – Synergistic Green Solutions

## A unique toolbox for self-preserved formulations

### Test Product No. 1: O/W emulsion

Phase	Ingredient	INCI name	%
<b>A</b>	Water	Aqua	<b>ad 100</b>
	Xanthan Gum NF	Xanthan Gum	<b>0.5</b>
<b>B</b>	Emulgade PL 68/50	Cetearyl Glucoside (and) Cetearyl Alcohol	<b>5.0</b>
	Lipex Sheasoft	Butyrospermum Parkii (Shea) Butter	<b>3.0</b>
	Joboba Oil	Simmondsia Chinensis (Jojoba) Oil	<b>3.0</b>
	Hazelnut Oil	Corylus Avellana (Hazel) Seed Oil	<b>3.0</b>
<b>C</b>	Bioxan T 70	Tocopherol	<b>0.1</b>
<b>D</b>	<i>Multifunctional components</i>	<i>see the following slides</i>	<i>q.s.</i>
<b>E</b>	Citric acid / Sodium Hydroxide	Citric Acid / Sodium Hydroxide	<b>pH adj.</b>

# E-Leen – Synergistic Green Solutions

## A unique toolbox for self-preserved formulations

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### Test Product No. 2: Sulphate-Free Shampoo

Phase	Ingredient	INCI name	%
<b>A</b>	Water	Aqua	ad 100
	Xanthan Gum NF	Xanthan Gum	0.6
	<i>Multifunctional components</i>	<i>see the following slides</i>	<i>q.s.</i>
	Plantacare 818 UP	<i>Coco Glucoside</i>	15.0
	Plantapon ACG HC	<i>Sodium Cocoyl Glutamate</i>	5.0
	Tego Betain F 50	<i>Cocamidopropyl Betain</i>	5.0
<b>B</b>	Citric acid / Sodium Hydroxide	Citric Acid / Sodium Hydroxide	pH adj.

# E-Leen – Synergistic Green Solutions

## A unique toolbox for self-preserved formulations

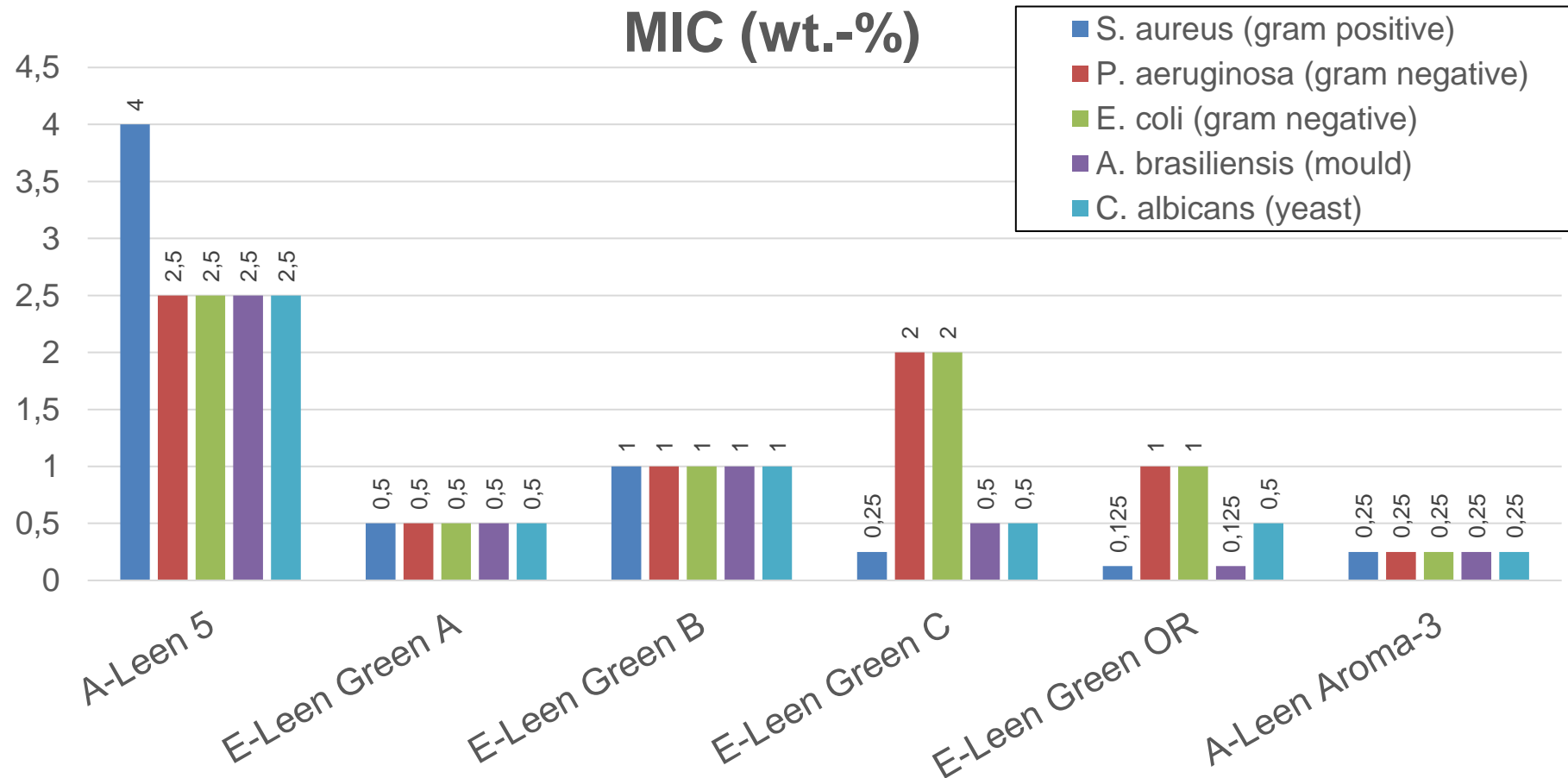
A-Leen 5...		+ Phenylpropanol:			+ Benzoic Acid/ Sodium Benzoate:		+ Glyceryl Caprylate/Caprate:		+ Citrus Extracts:		Pentylene Glycol		
		E-Leen Green A			E-Leen Green B		E-Leen Green C		E-Leen Green OR		A-Leen 5		
	pH	1,5%	2,0%	3,0%	2,0%	3,0%	2,0%	3,0%	2,0%	3,0%	2,0%	3,0%	5,0%
#1:  O/W- Emulsion	4,5	A			A		A		A		B	A	A
	5,5	B	A		A		B	A	A				A
	6,0		A			B		A	A	A			
	6,5		A					A	B	A			
	7,0	B	A					A					
	8,0		B	A									
#2:  Sulfate Free Shampoo	4,5	B	A		A			B					
	5,5	B	A		A			B				B	A
	7,0	B	B	A				B					
	8,0			A									

A / B : challenge test result, fulfils criteria A/B of ISO 11930

: not recommended for this application

# E-Leen – Synergistic Green Solutions

## Comparison of Minimum Inhibitory Concentrations



# E-Leen – Synergistic Green Solutions

## Skin moisturizer

### Corneometry

Hydration efficacy assessed on 15 female (18-65 years old)

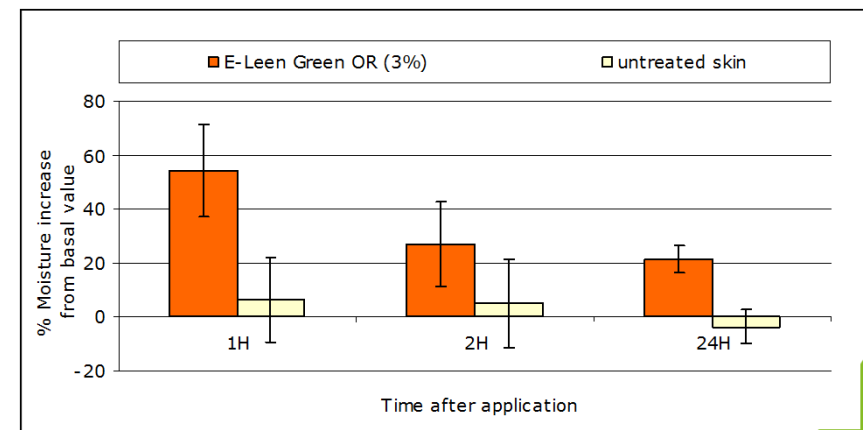
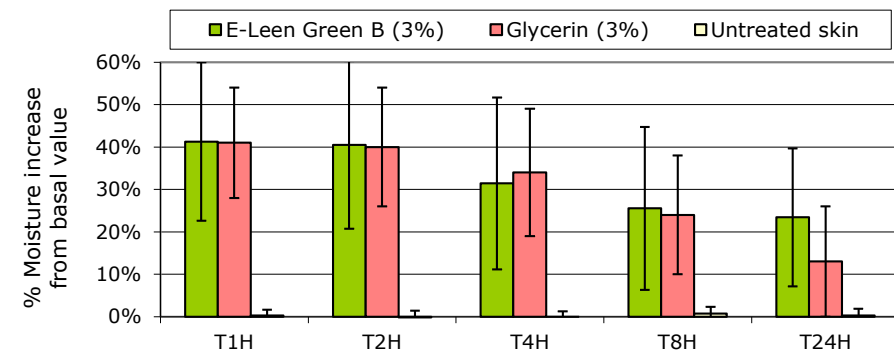
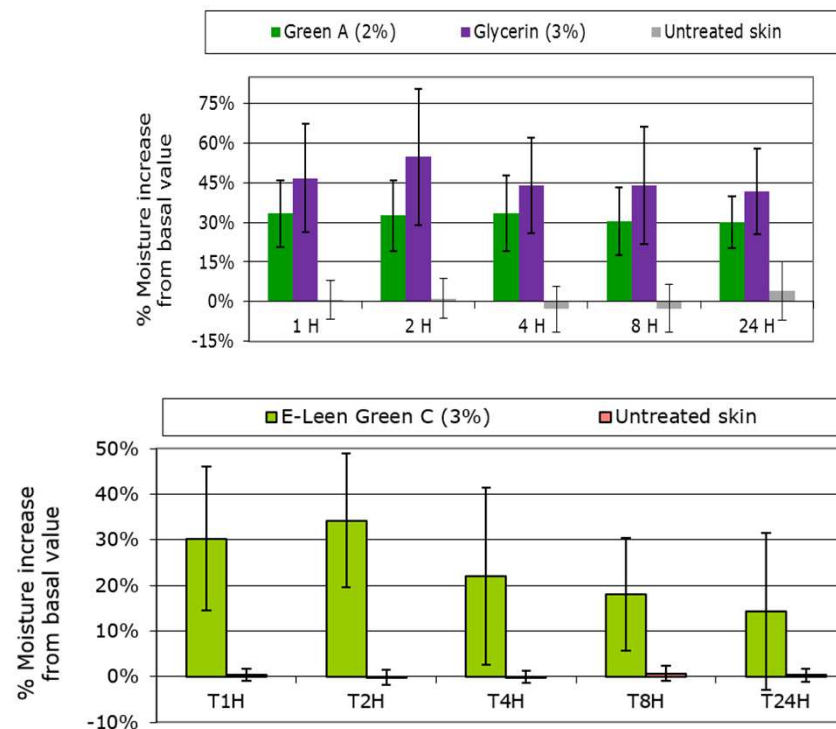
Phototype : I to IV

Dry skin (level  $\leq 40$  AU)

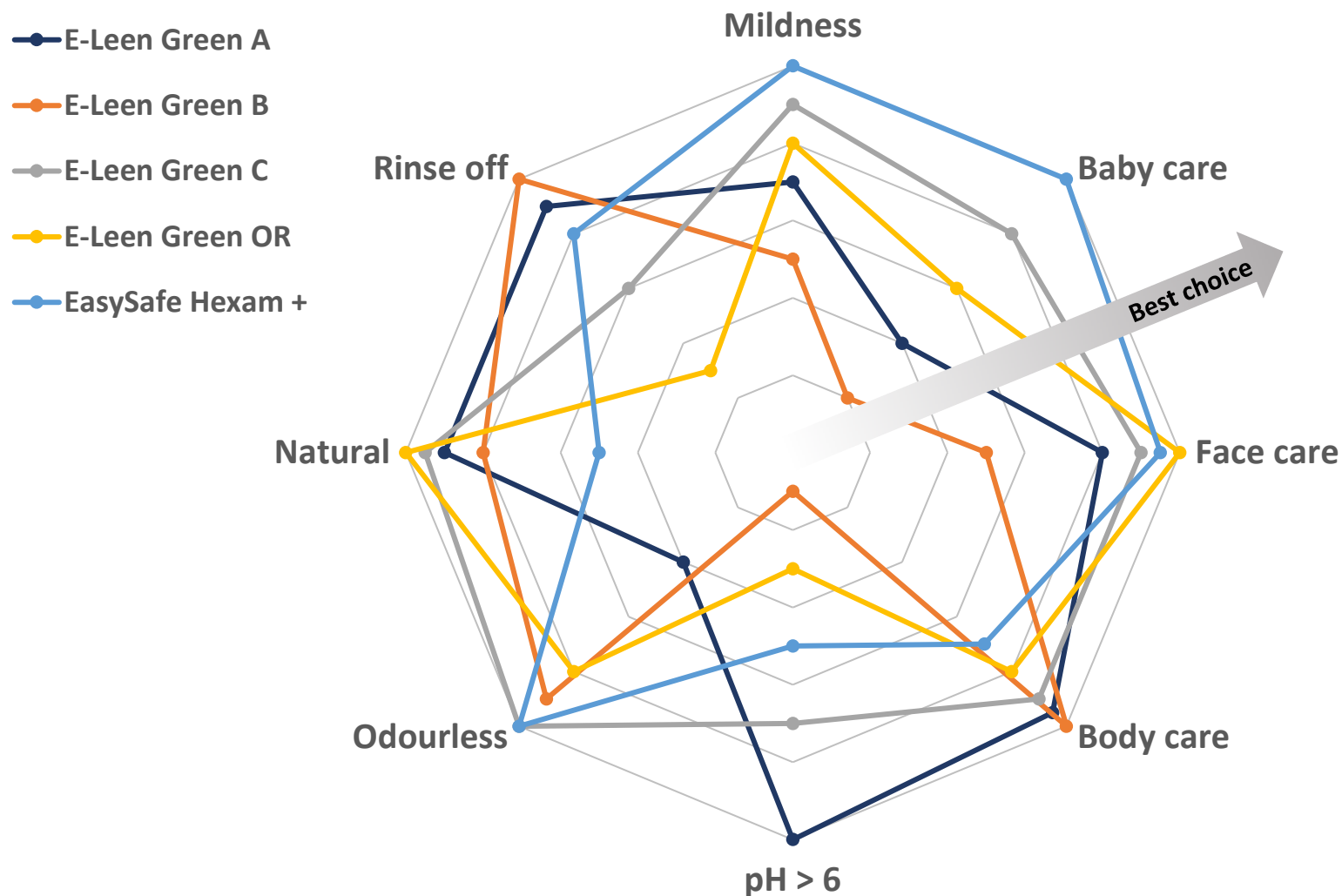
Single application of the below products diluted at 2% (E-Leen Green A) or 3% (E-Leen Green B, E-Leen Green C, E-Leen Green OR)

in water applied on the forearm

Measurement with a Cutometer® dual MPA 580 after 1-2-4-8-24h








# E-Leen – Synergistic Green Solutions Selector



# E-Leen – Synergistic Green Solutions

## Ready to use solutions for self-preserved formulations

Characteristics	E-Leen Green A	E-Leen Green B	E-Leen Green C	E-Leen Green OR
INCI	Pentylene Glycol, <b>Phenylpropanol</b>	Pentylene Glycol, Aqua, <b>Sodium Benzoate, Benzoic Acid</b>	Pentylene Glycol,  <b>Glyceryl Caprylate/Caprate</b>	Pentylene Glycol, Glycerin, <b>Bioflavonoids</b>
pH range	"unlimited"	2-6	4-7	3- 6.5
Odor	faint, aromatic	faint	faint	faint
COSMOS	approved	approved	approved	approved
	High pH formulations	Low pH formulations	natural & sensitive areas	natural + 100 % sustainable + active ingredient
				

# E-Leen – Synergistic Green Solutions

## HRIPT test (Human Repeated Insult Patch Test)

### HRIPT protocol :

Skin compatibility study and absence of allergenic potential, after repeated applications of the ingredients under occlusive conditions\*, over 36 days.

**\*Patch material : Occlusive patch Finn Chamber Large , 50 µL**

HRIPT	E-Leen Green A	E-Leen Green B	E-Leen Green C	E-Leen Green OR
Focus group	52	50	55	103
Age	18-70	18-65	18-65	18-70
Type of skin	80% normal 20% sensitive	70% normal 30% sensitive	90% normal 10% sensitive	50% normal 50% sensitive
Skin Phototype (Fitzpatrick)	II to IV	I to IV	I to IV	I to IV
Results	-No irritative reaction -Very good skin compatibility -No allergic reaction	-No irritative reaction -Very good skin compatibility -No allergic reaction	-No irritative reaction -Very good skin compatibility -No allergic reaction	-No irritative reaction -Very good skin compatibility -No allergic reaction

# E-Leen Benefits

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## Less stock/one supplier

➔ Added value for **PROCUREMENT**

## Constant quality

➔ Added value for **QC**

## Easier manipulation

➔ Added value for **FORMULATION** and **PRODUCTION**

## More efficient final product

➔ Added value for **CUSTOMER**

## Trendly products

➔ Based on **Green Chemistry**

➔ Increase the natural origin index of your formulations

➔ **GMO Free, Halal, Vegan compliant**

➔ **Positive impact for YOUR CUSTOMERS**



FROM BIOMASS TO COSMETIC

# Biosourced odourless Pentylene Glycol



Anti-microbial



Emollient



Moisturizer



Solubilizer



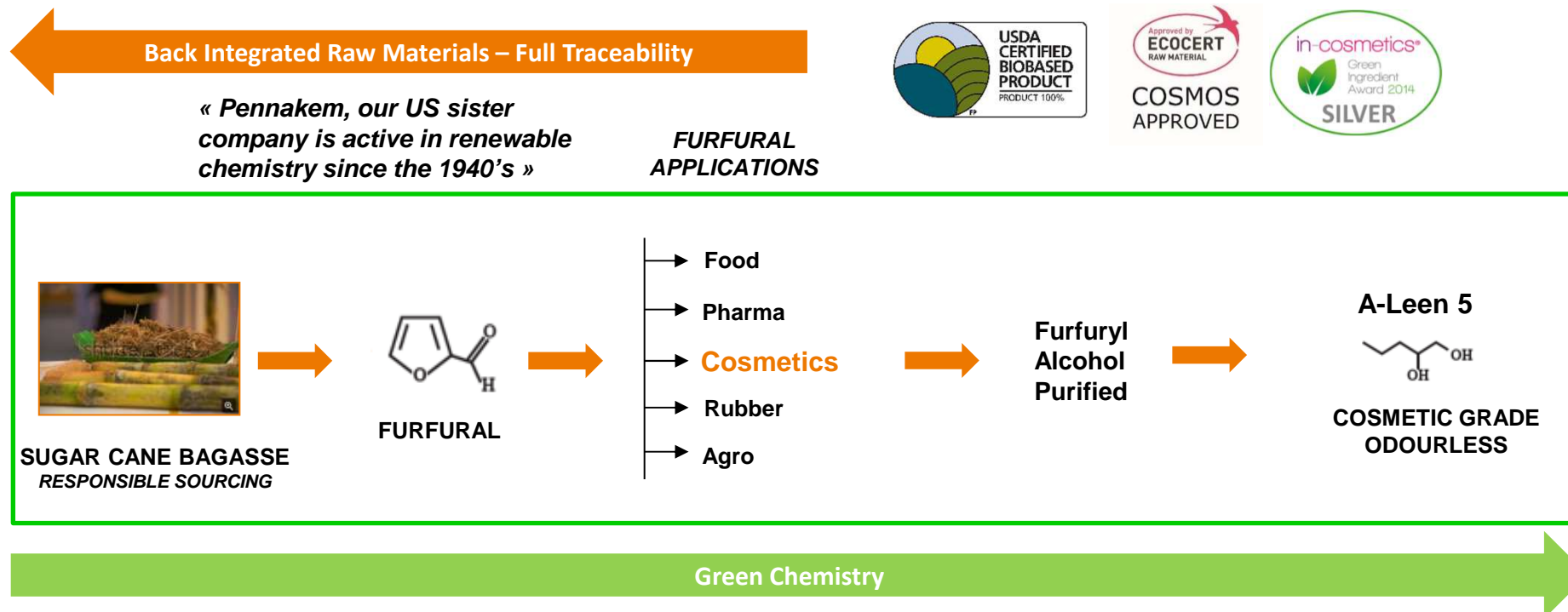
Extraction solvent

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green  
solving  
attitude.

# A-Leen 5

## Pionner of bio-based Pentylene Glycol







- Natural Origin Index = 1 (ISO 16128-2)
- 100 % Renewable carbon
- Halal compliant
- Vegan compliant
- Natrue compliant

# A-Leen 5

## Green Added Value

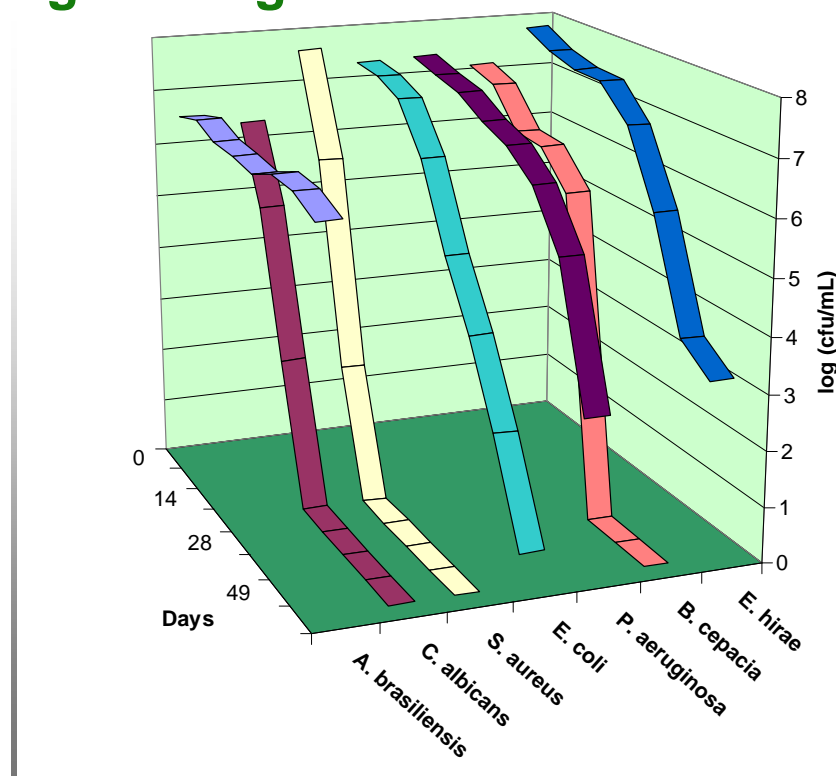
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	Pentiol	A-Leen 5
Appearance	Clear colourless liquid	
Odour	Comparable	
Solubility	Miscible with water, ethanol, 1-2 alkanediols	
INCI	Pentylene Glycol	
% use	0,5 - 5%	
Formulation	Incorporation into the aqueous phase	
	Non temperature sensitive	
	Non pH sensitive	
Origin	petrochemical	natural
Approved		Ecocert, Cosmos Valorisation of waste made from non food part of sugarcane Minasolve exclusivity
Labels		   

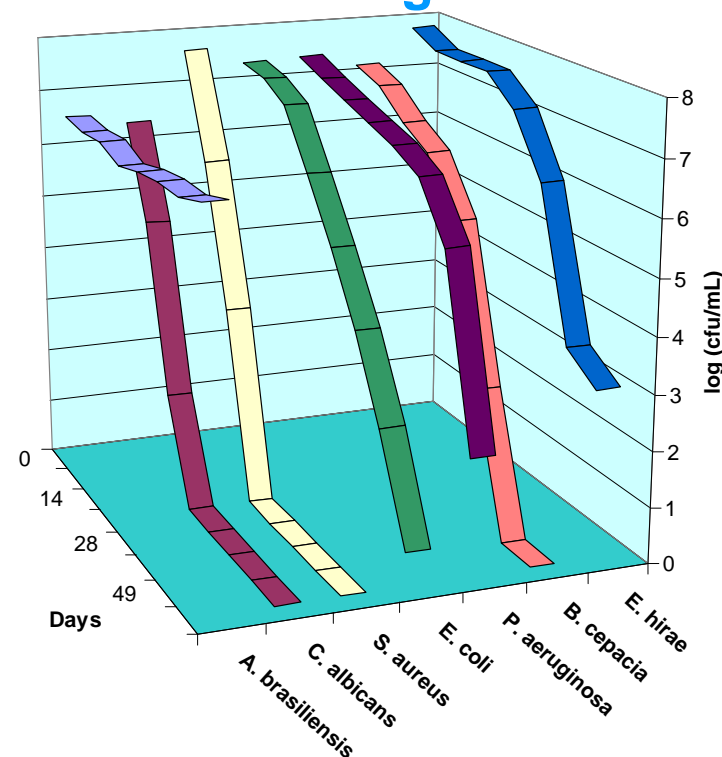
## A-Leen 5

### Green Added Value – Identical Antimicrobial Performance

A-Leen 5  
vegetal origin



Pentiol  
petrochemical origin



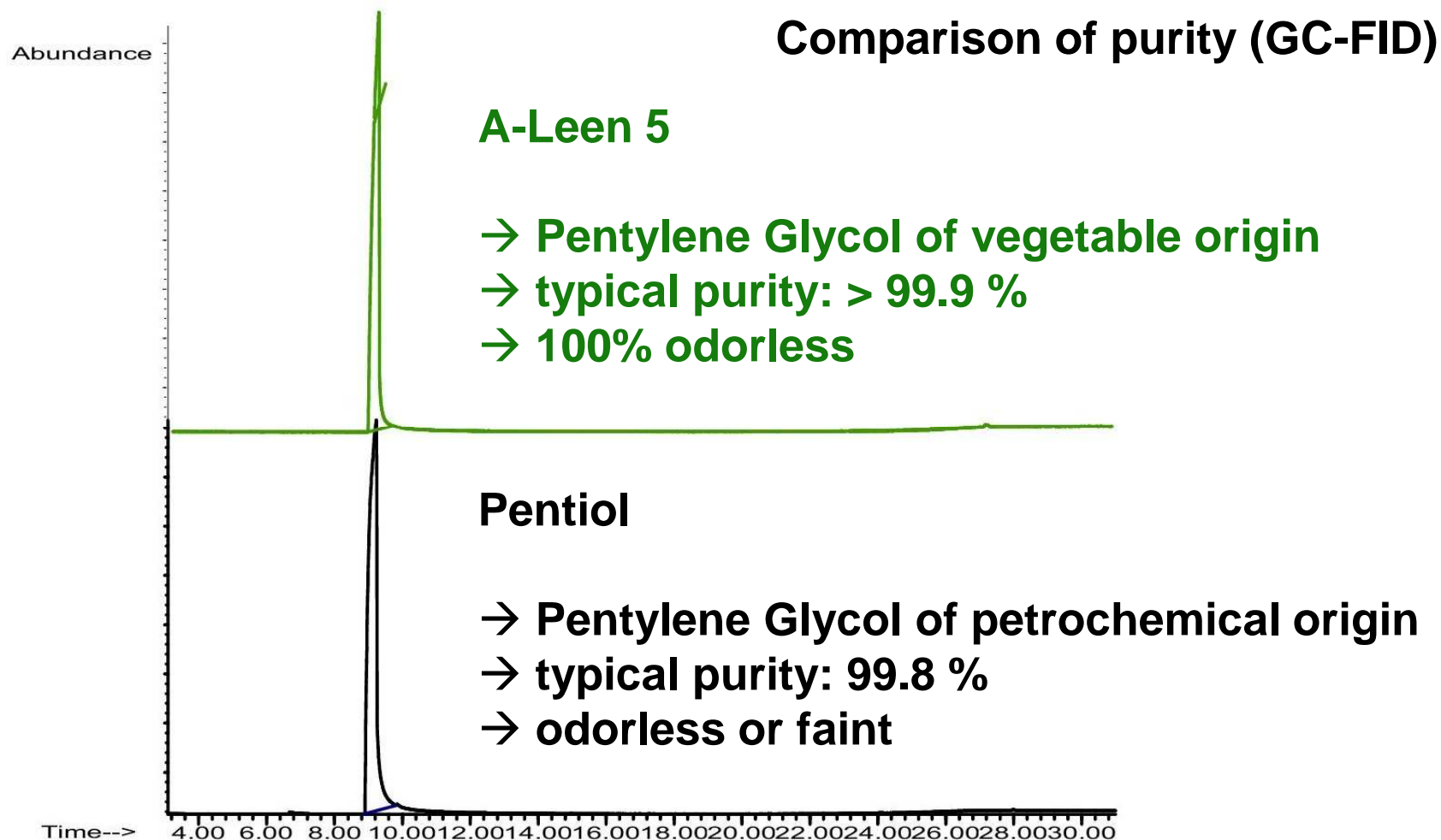
**Both ingredients provide the same antimicrobial efficacy**

Variation of germ count with time in aqueous growth medium with 0.3 g/L BSA at 20°C containing 5 % Pentiol / 5 % A-Leen 5  
(cfu = colony forming units, BSA = bovine serum albumine).

# A-Leen 5

## Green Added Value – High Purity

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# A-Leen 5

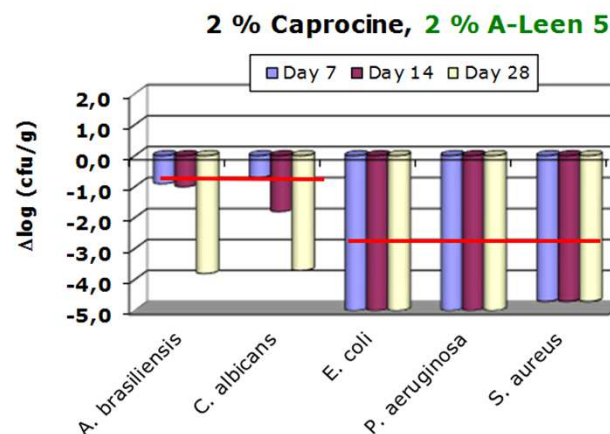
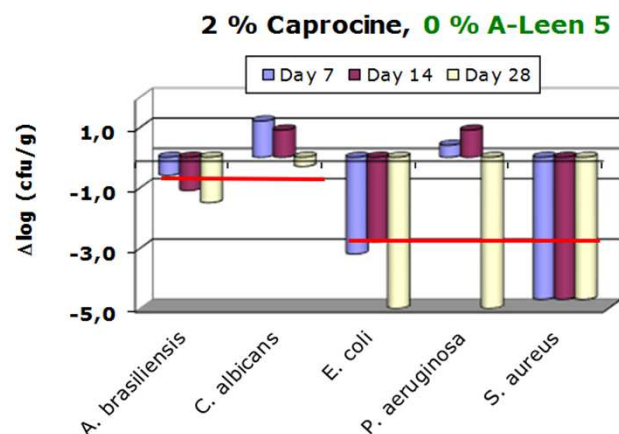
## Antimicrobial efficacy booster (Caprocline)

O/W emulsion, protected by 2 % A-Leen 5 and 2 % Caprocline, pH 5.5

Phase	Ingredient	INCI name	%
A	Water	Aqua	ad 100
	Xanthan Gum PC	Xanthan Gum	0.50
	Caprocline	Capryloyl Glycine	2.00
	A-Leen 5	Pentylene Glycol	2.00
B	Emulgade PL 68/50	Cetearyl Glucoside (and) Cetearyl Alcohol	5.00
	Lipex Sheasoft	Butyrospermum Parkii (Shea) Butter	3.00
	Joboba Oil	Simmondsia Chinensis (Jojoba) Oil	3.00
	Hazelnut Oil	Corylus Avellana (Hazel) Seed Oil	3.00
C	Bioxan T70	Tocopherol	0.10
D	Citric Acid (50%)	Citric Acid (and) Aqua	ad pH 5.5



Subjected to challenge test, according to ISO 11930



A.brasiliensis (Mould)  
C.albicans (Yeast)  
E.coli (Gram -)  
P. aeruginosa (Gram -)  
S.aureus (Gram +)

ISO 11930 : reduction of germ count after 28 days (criteria A)



Can act as an effective preservative booster

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# A-Leen 5

## Green Formula Protection @ 5%

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O/W emulsion, **protected by 5 % A-Leen5, pH 5.5**

Phase	Raw material	INCI Name	%
A	Water	Aqua	80.40
	Xanthan Gum OC	Xanthan Gum	0.5
	A-Leen 5	Pentylene Glycol	5.00
B	Emulgrade PL 68/50	Ceterayl Glucoside (and) Cetearyl Alcohol	5.00
	Lipex Sheasoft	Butyrospermum Parkil (Shea) Butter	3.00
	Jojoba oil	Simmondsia Chinensis (Jojoba) Oil	3.00
	Hazelnut Oil	Corylus Avellana (Hazel) Seed Oil	3.00
C	Boixan T70	Tocopherol	0.10
D	Citric Acid (50%)	Citric Acid (and) Aqua	ad pH 5.5

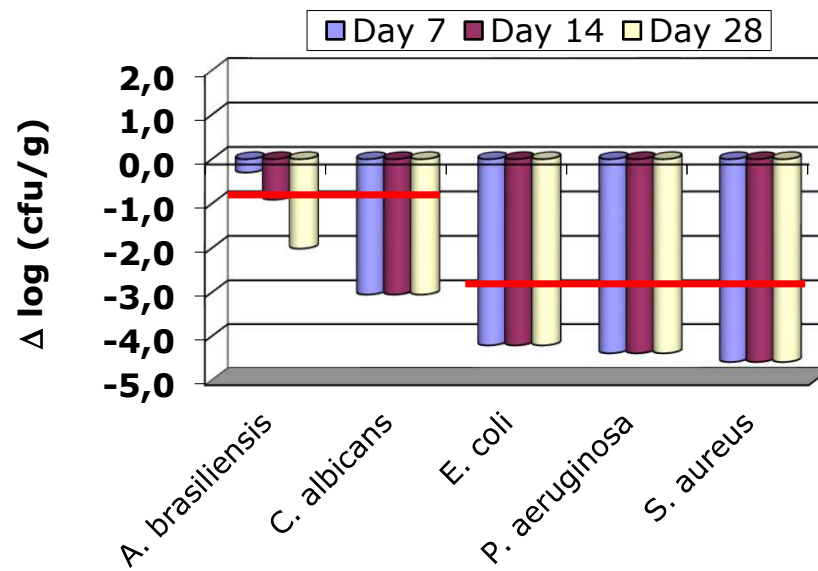
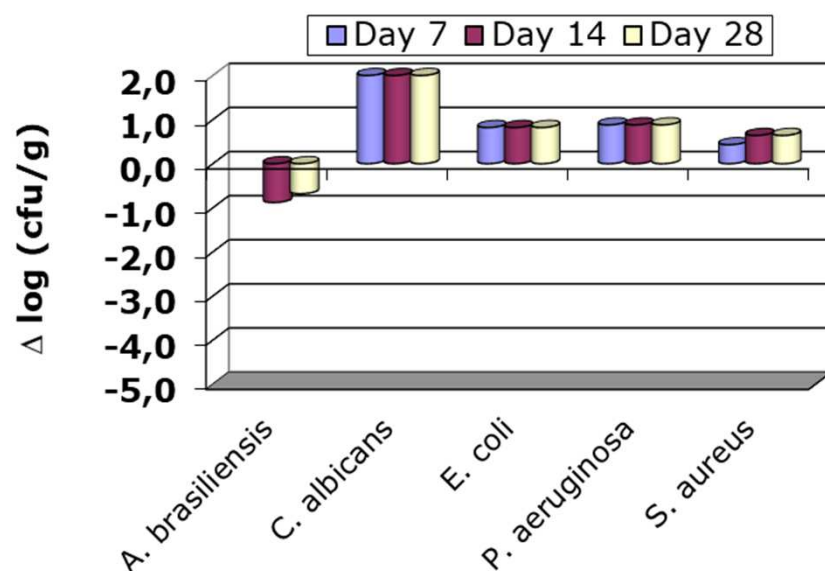
# A-Leen 5

## Green Formula Protection @ 5%

O/W emulsion, protected by 5 % A-Leen5, pH 5.5

Subjected to challenge test, according to ISO 11930

A.brasiliensis (Mould)  
C.albicans (Yeast)  
E.coli (Gram -)  
P. aeruginosa (Gram -)  
S.aureus (Gram +)



— ISO 11930 : reduction of germ count after 28 days (criteria A)

➔ Meets criteria for standalone preservation at 5%

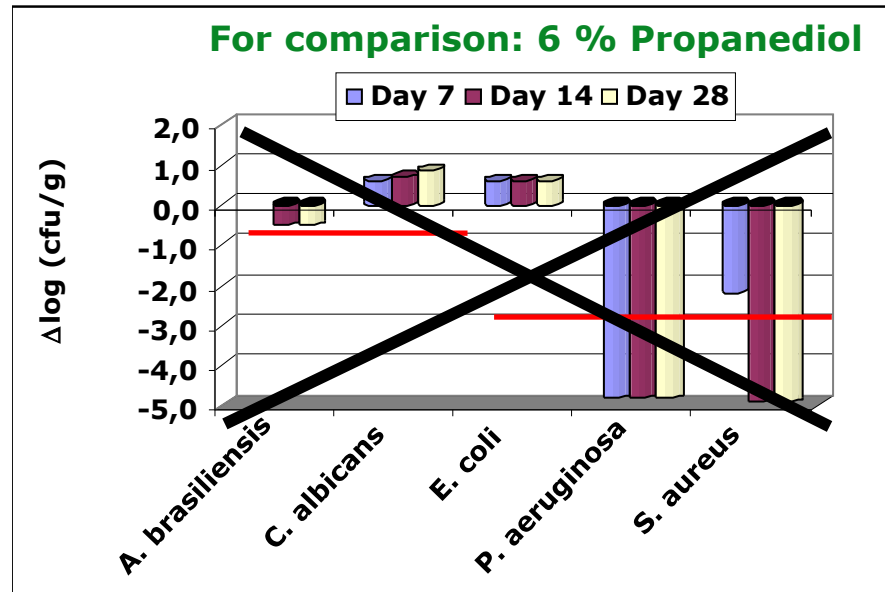
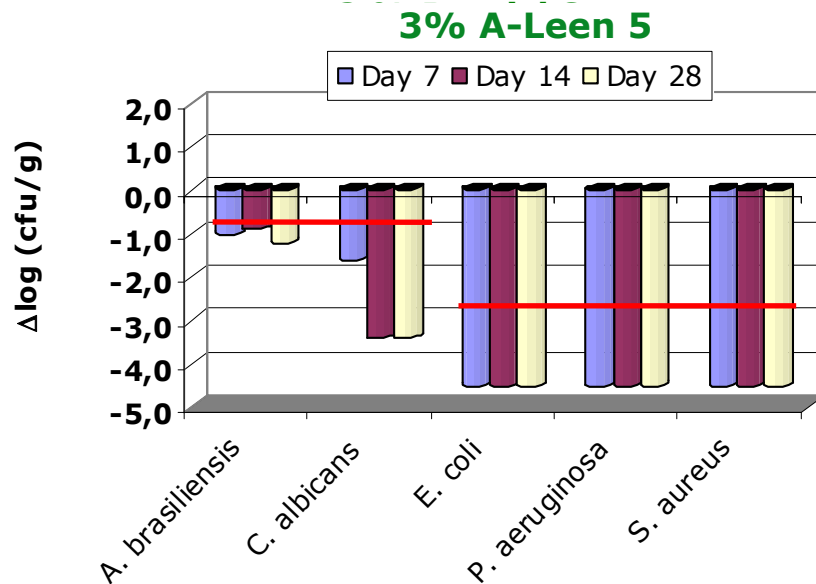
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BIO-INGREDIENTS FOR YOUR APPLICATIONS

# A-Leen 5

## For comparison with Propanediol

O/W emulsion,  
protected by 3 % A-Leen 5, pH 5.6 or 6 % Propanediol, pH 5.3  
subjected to challenge test, according to ISO 11930

A.brasiliensis (Mould)  
C.albicans (Yeast)  
E.coli (Gram -)  
P. aeruginosa (Gram -)  
S.aureus (Gram +)



— ISO 11930 : reduction of germ count after 28 days (criteria A)

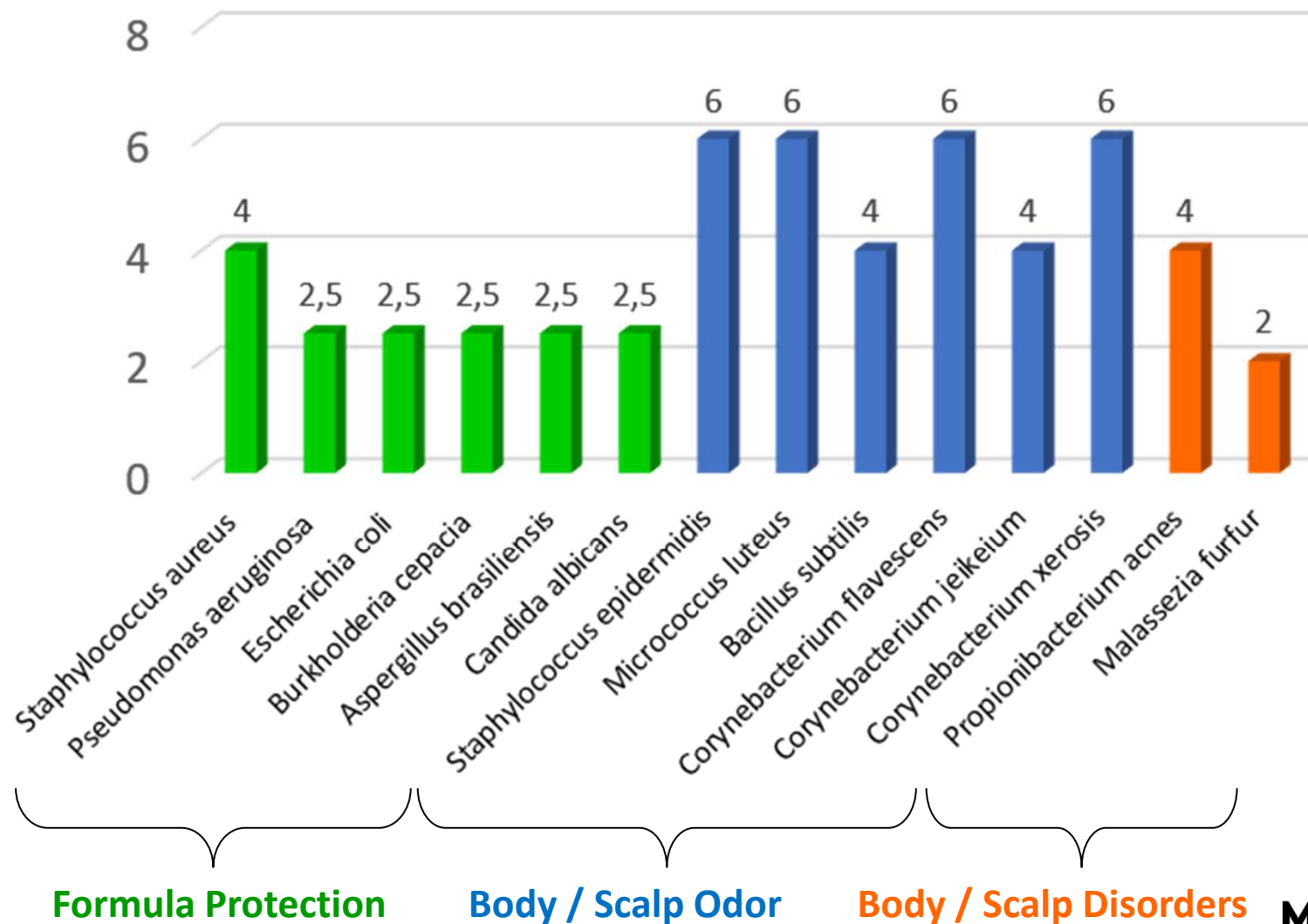


**A-Leen 5 is much more efficient  
than Propanediol**

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# A-Leen 5

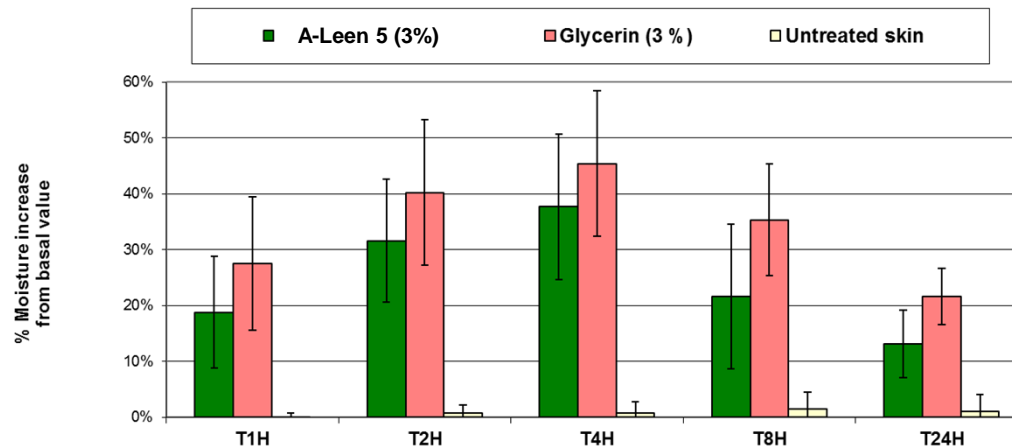
## MIC - Broad Spectrum Antimicrobial Effect



# A-Leen 5

## Safe Moisturizer

Corneometry study, tested at 3 % as aqueous solution, by 12 volunteers



➡ Long lasting moisturizing effect, comparable to glycerin in aqueous solution

### HRIPT (Human Repeated Insult Patch Test)

#### HRIPT protocol :

Skin compatibility study and absence of allergenic potential, after repeated applications of the ingredients under occlusive conditions\*, over 36 days.

\**Patch material* : Occlusive patch Finn Chamber standard

\*Within the focus group, about 30 % of the panel has a sensitive skin.

After the test, nobody showed skin reaction

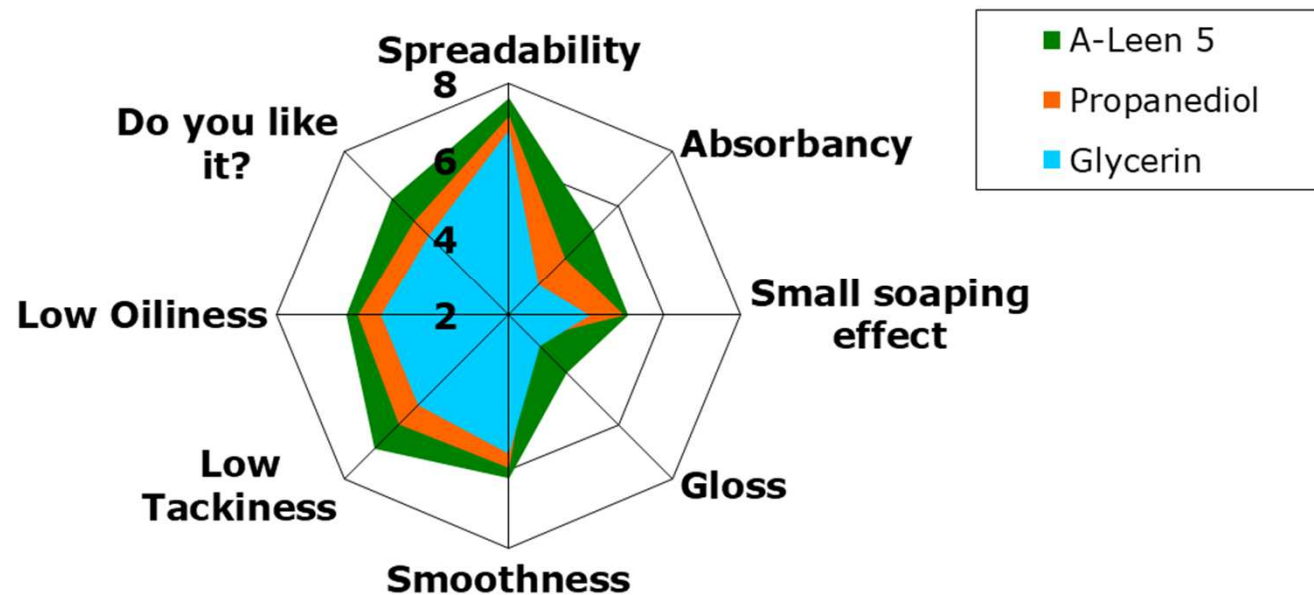
Presentation E-Leen range - December 2019 - V2

HRIPT	A-Leen 5
Number of subjects	101
Age	18-65
Type of skin	All types
Skin Phototype (Fitzpatrick)	I to IV
RESULT	<ul style="list-style-type: none"><li>- No irritative reaction</li><li>- Very good skin compatibility</li><li>- No allergic reaction</li></ul>

# A-Leen 5

## Good Sensory Profile

Consumer study,  
tested at 3 % in an O/W emulsion, by 23 volunteers



➔ Superior skin conditioning  
and in-use properties for A-Leen 5

# EXAMPLES

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# A-Leen 5 Wellbeing Body Cream



**O/W-emulsion,  
partly self-preserving**

**Protected by 3 % A-Leen 5**

Aspect : Opaque ivory cream

pH : 5.5

**Meets criteria A / ISO 11930**

Phase	Raw material ( <i>INCI Name</i> )	%
<b>A</b>	<b>Water</b> ( <i>Aqua</i> )	72.0
<b>B Premix</b>	<b>A-Leen 5</b> ( <i>Pentylene Glycol</i> )	<b>3.0</b>
	<b>Xanthan Gum PC</b> ( <i>Xanthan Gum</i> )	0.3
<b>C</b>	<b>Emulium Kappa 2</b> ( <i>Candellila/Jojoba/Rice Bran Polyglyceryl-3 Esters (and) Glyceryl Stearate (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate</i> )	1.5
	<b>Glyceryl Monostearate</b> ( <i>Glyceryl Monostearate</i> )	2.3
	<b>TEGO Care PS</b> ( <i>Methyl Glucose Sesquistearate</i> )	1.2
	<b>Jojoba Oil</b> ( <i>Simmondsia Chinensis (Jojoba) Seed Oil</i> )	5.0
	<b>Almond Oil</b> ( <i>Prunus Amygdalus Dulcis (Sweet Almond) Oil</i> )	4.0
	<b>Lipex Cocoasoft</b> ( <i>Theobroma Cacao Butter</i> )	3.0
	<b>BergaCare FG5</b> ( <i>Ethylhexyl Palmitate (and) Ethylhexyl Stearate (and) Hydrogenated Olive Oil (and) Caprylic/Capric Triglycerides</i> )	2.0
	<b>Grape Seed Oil</b> ( <i>Vitis Vinifera (Grape) Seed Oil</i> )	4.0
	<b>Beeswax</b> ( <i>Cera Alba</i> )	1.5
<b>D</b>	<b>Perfume Celebration Fitness</b> ( <i>Parfum</i> )	0.1
	<b>DL-<math>\alpha</math>-Tocopherol</b> (>97%) ( <i>Tocopherol</i> )	0.1

# E-Leen Green A Purifying Clay Mask



**O/W-emulsion/  
suspension  
with high pH**

**Protected by**

**3 % E-Leen Green A**

Aspect : Soft light kaki cream

pH : 8.0

**Meets criteria A / ISO 11930.**

Phase	Raw material	INCI name	%
A	Water	<i>Aqua</i>	Ad 100
	<b>Fresh'in Green+ (1)</b>	<b>Pentylene Glycol (and) Methyl Diisopropyl Propionamide</b>	<b>0.3</b>
	Xanthan Gum NF <sup>(2)</sup>	<i>Xanthan Gum</i>	0.5
B	Emulgade PL 68/50 <sup>(3)</sup>	<i>Cetearyl Glucoside (and) Cetearyl Alcohol</i>	5.0
	Lipex Sheasoft <sup>(4)</sup>	<i>Butyrospermum Parkii (Shea) Butter</i>	3.0
	Joboba Oil <sup>(5)</sup>	<i>Simmondsia Chinensis (Jojoba) Seed Oil</i>	3.0
	Hazelnut Oil <sup>(5)</sup>	<i>Corylus Avellana (Hazel) Seed Oil</i>	3.0
C Premix	Water	<i>Aqua</i>	20.0
	CosGreen Surfine <sup>(6)</sup>	<i>Kaolin</i>	20.0
D	DL- $\alpha$ -Tocopherol (>97%)	<i>Tocopherol</i>	0.1
	Perfume Bambus & Zitronengras <sup>(7)</sup>	<i>Parfum</i>	0.5
	<b>E-Leen Green A (1)</b>	<b>Pentylene Glycol (and) Phenylpropanol</b>	<b>3.0</b>
E	Sodium Hydroxide solution	<i>Aqua (and) Sodium Hydroxide</i>	q.s.

Raw materials suppliers:

<sup>(1)</sup>Minasolve; <sup>(2)</sup>Jungbunzlauer; <sup>(3)</sup>BASF; <sup>(4)</sup>AAK; <sup>(5)</sup>Caesar & Loretz; <sup>(6)</sup>Argiles du Velay/Cameleon Chemicals; <sup>(7)</sup>Bell

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# E-Leen Green B Wellbeing Hand Cream



**O/W-emulsion,  
hard to preserve**

**Protected by**

**3 % E-Leen Green B**

Aspect : Opaque ivory cream

pH : 5.5

**Meets criteria A / ISO 11930.**

Phase	Raw material ( <i>INCI Name</i> )	%
A	<b>Water</b> ( <i>Aqua</i> )	75.5
	<b>Xanthan Gum PC</b> ( <i>Xanthan Gum</i> )	0.3
B	<b>Emulgade PL 68/50</b> ( <i>Cetearyl Glucoside (and) Cetearyl Alcohol</i> )	5.0
	<b>BergaCare FG5</b> ( <i>Ethylhexyl Palmitate (and) Ethylhexyl Stearate (and) Hydrogenated Olive Oil (and) Caprylic/Capric Triglycerides</i> )	3.0
	<b>Lipex Sheasoft</b> ( <i>Butyrospermum Parkii (Shea) Butter</i> )	2.0
	<b>Myritol 318</b> ( <i>Caprylic/Capric Triglyceride</i> )	5.0
	<b>Sesame Oil</b> ( <i>Sesamum Indicum (Sesame) Oil</i> )	5.0
C	<b>DL-<math>\alpha</math>-Tocopherol</b> (>97%) ( <i>Tocopherol</i> )	0.1
	<b>Perfume Fireweed</b> ( <i>Parfum</i> )	0.1
	<b>E-Leen Green B</b> ( <i>Pentylene Glycol (and) Water (and) Sodium Benzoate (and) Benzoic Acid</i> )	<b>3.0</b>
D	<b>Sodium Hydroxide</b> (10%) ( <i>Aqua (and) Sodium Hydroxide</i> )	qs
	<b>Buffer</b> ( <i>Aqua (and) Citric Acid (and) Sodium Citrate</i> )	0.5

# E-Leen Green C Intimate Cleansing Gel



## Mild cleansing gel

Protected by

**3 % E-Leen Green C**

Aspect : soft clear gel

pH : 4.8

**Meets criteria A / ISO 11930.**

Phase	Raw material	INCI name	%
A	Water	Water	ad 100
	Allantoin	Allantoin	0.2
	Glycerin	Glycerin	2.0
	Sorbitol	Sorbitol	2.0
	Sodium Gluconate	Sodium Gluconate	0,4
	Xanthan Gum NF <sup>(1)</sup>	Xanthan Gum	0.5
B	Plantacare 2000 UP <sup>(2)</sup>	Decyl glucoside	10.0
	Tego Betain 810 <sup>(3)</sup>	Capryl/Capramidopropyl Betaine	3.0
C	<b>E-Leen Green C <sup>(4)</sup></b>	<b>Pentylene Glycol (and) Glyceryl Caprylate/Caprates</b>	<b>2.0</b>
D	Lactic acid solution (20%)	Water (and) Lactic Acid	q.s.

Raw materials suppliers:

<sup>(1)</sup>Jungbunzlauer; <sup>(2)</sup>BASF; <sup>(3)</sup>Evonik; <sup>(4)</sup>Minasolve

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BIO-INGREDIENTS FOR YOUR APPLICATIONS

# Caprocine & A-Leen 5 Anti-acne Face Cleanser



## Cleansing Hydrogel for acne-prone/oily skin

Protected by 2 % A-Leen 5  
and 1 % Caprocine  
(= active ingredient)

Aspect : clear blue gel

pH : 5.5

Meets criteria A / ISO 11930.

Phase	Raw material	INCI name	%
A	Water	<i>Aqua</i>	76.6
	Methocel 40-202 PCG	<i>Hydroxypropyl Methylcellulose</i>	0.2
B	<b>A-Leen 5</b>	<b>Pentylene Glycol</b>	<b>2.0</b>
	Xanthan Gum NF	<i>Xanthan Gum</i>	0.5
C	aq. NaOH (50%)	<i>Aqua (and) Sodium Hydroxide</i>	0.4
D	<b>Caprocine</b>	<b>Capryloyl Glycine</b>	<b>1.0</b>
E	Plantacare 1200 UP	<i>Lauryl Glucoside</i>	5.0
	Plantapon ACG HC	<i>Sodium Cocoyl Glutamate</i>	5.0
	Rewoteric AMC	<i>Sodium Cocoamphoacetate</i>	4.0
F	Lamesoft PO 65	<i>Coco-Glucoside (and) Glyceryl Oleate</i>	3.0
	Glycerin	<i>Glycerin</i>	2.0
	Perfume Bamboo & Lemongrass	<i>Parfum</i>	0.2
	D&C Green # 5 (1%)	<i>Aqua (and) Green No. 5</i>	0.1
G	Citric acid (50%)	<i>Aqua (and) Citric Acid</i>	qs

Raw materials suppliers:

<sup>(1)</sup>Minasolve; <sup>(2)</sup>Jungbunzlauer; <sup>(3)</sup>BASF; <sup>(4)</sup>AAK; <sup>(5)</sup>Caesar & Loretz; <sup>(6)</sup>Argiles du Velay/Cameleon Chemicals; <sup>(7)</sup>Bell

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# Conclusion

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**E-Leen range is making  
possible to create  
“modern” self-preserved  
formulations with the  
help of sustainably made  
multifunctional  
ingredients ...**

# Minasolve® is an affiliate of The MINAFIN® Group

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Created in 2004, The MINAFIN® Group, specializes in fine chemistry for the life sciences and high tech industries. Activities include industrial subcontracting, development of chemical syntheses and industrial scale-up of custom-made processes as well as proprietary products with high added values for the pharmaceutical, cosmetics, agriculture and high tech industries. **Strong synergies exist between all business units :**

- Minakem
- Minagro
- Pennakem
- Pressure Chemical
- Minascent
- EcoXtract

**Serving market leaders as well as emerging players**, we support our customers' efforts to improve the quality of life in the global community by :

- Improving our chemistry and operational excellence today
- Creating and innovating for tomorrow
- Driving our enterprises together to **go beyond expectations**



# THANK YOU FOR YOUR ATTENTION

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The above information is accurate to the best of our knowledge. Customers are advised to make their own studies on the usefulness of any ingredient for a particular application. Recommended usage information is only provided as indication, and should not be considered as recommendations to use Minasolve's products in violation of any laws, patents, or official regulations dealing with manufacture, composition, local procedures, product design, or end usage.

Presentation E-Leen range - December 2019 - V2

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