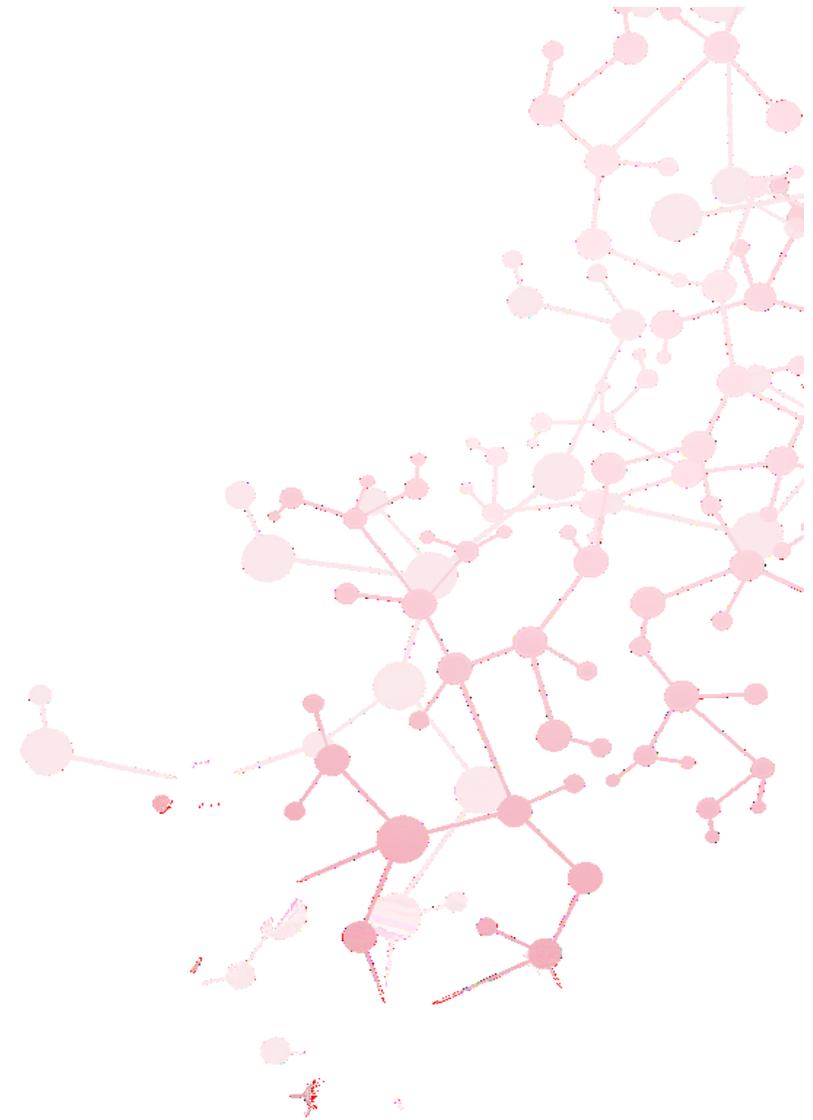


COSMETIC

SAFAXAN RANGE

INCI Name: XANTHAN GUM



OUTLINE

-  **BACKGROUND**
-  **MARKET STUDY**
-  **PRODUCTION**
-  **STRUCTURE**
-  **MAIN PROPERTIES**
-  **PH AND TEMPERATURE STABILITY**
-  **SOLUBILISATION AND HYDRATION**
-  **USAGE INSTRUCTIONS**
-  **APPENDICES**



SAFAXAN RANGE: BACKGROUND

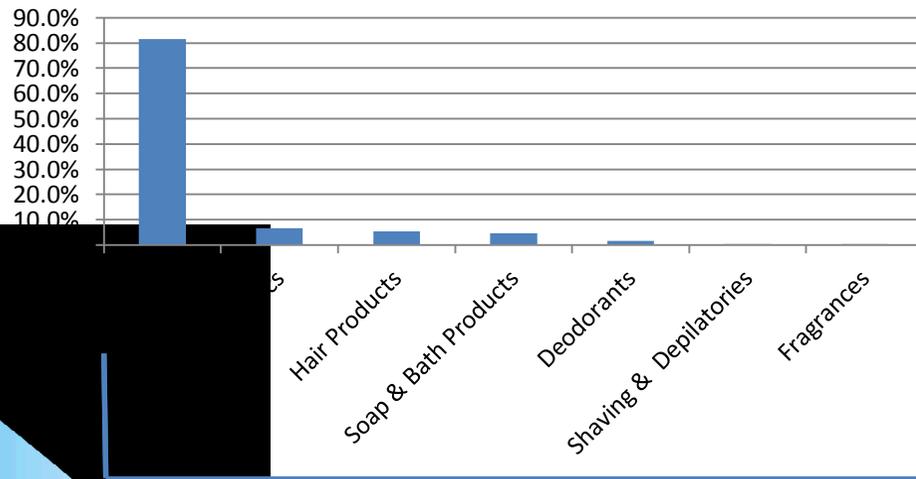


Definition

- Polysaccharide prepared by **bio-fermentation** of sugars by bacterium *Xanthomonas campestris*
- INCI name: **Xanthan Gum**
- **3 grades:**
 - Safaxan 80 : **high particle** size (177 μm), low hydration rate, fast dispersion
 - Safaxan 200 : **low particle** size (80 μm), fast hydration rate, low dispersion

SAFAXAN RANGE: MARKET STUDY

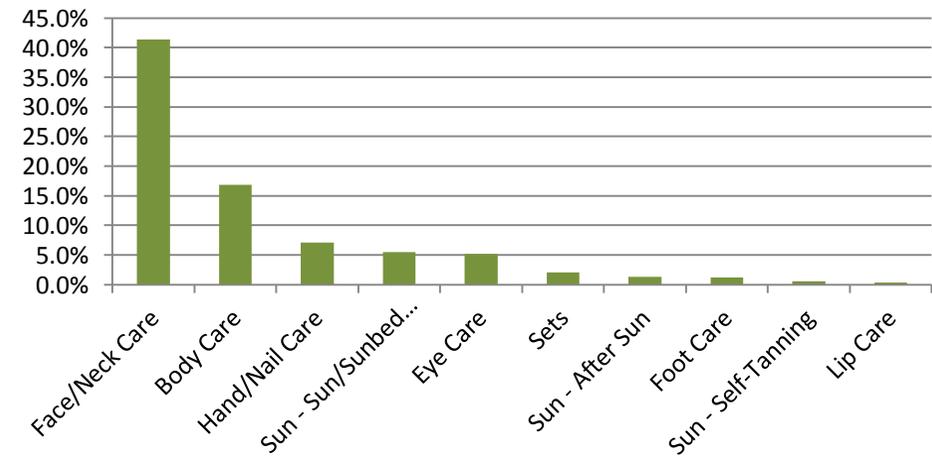
Category



Skincare	81.5%
Colour Cosmetics	6.7%
Hair Products	5.3%
Soap & Bath Pro...	4.6%
Deodorants	1.5%
Shaving & Depila...	0.37%
Fragrances	0.13%
Total Sample	100.0%

Number of products launched with "xanthan" in Europe* in the past 12 months : 3834 (source Mintel)

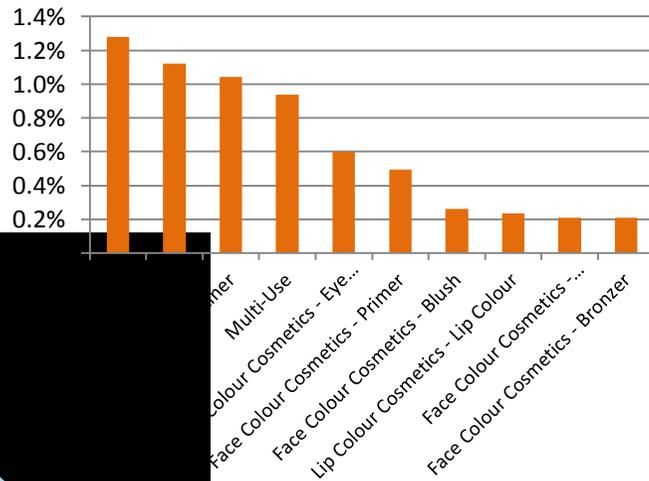
Skin care



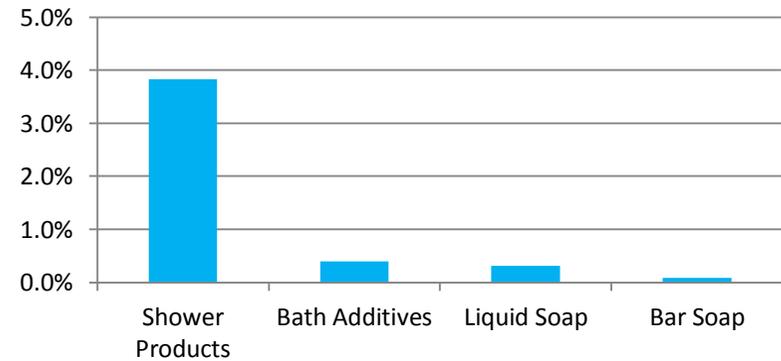
- France, Germany, UK, Italy, Spain, Belgium, Poland, Czech Republic, Portugal, Netherlands, Turkey

SAFAXAN RANGE: MARKET STUDY

Colour cosmetics

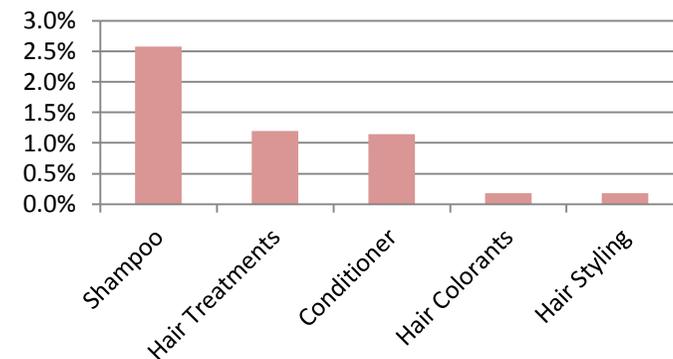


Soap & Bath products

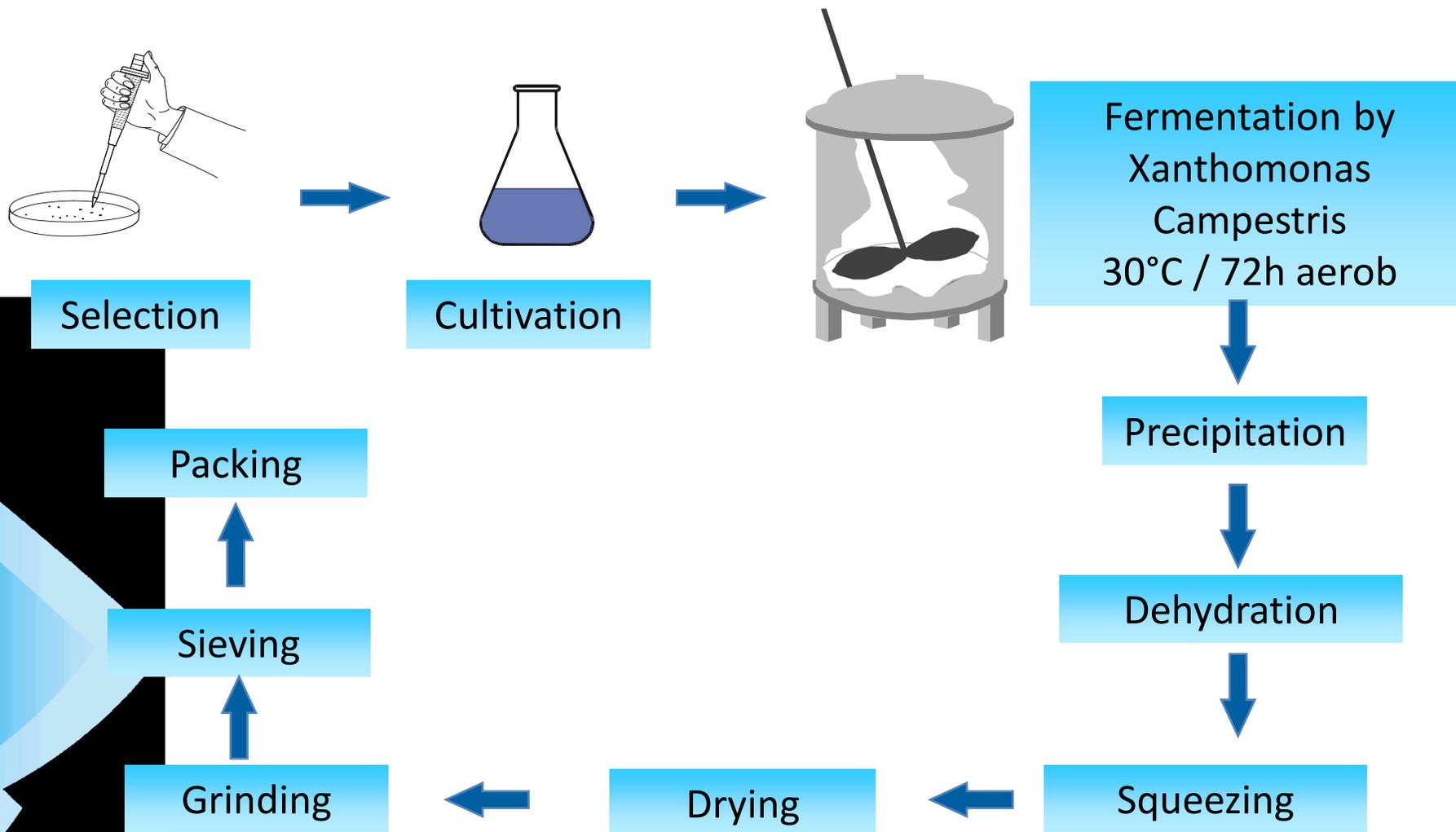


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Hair products

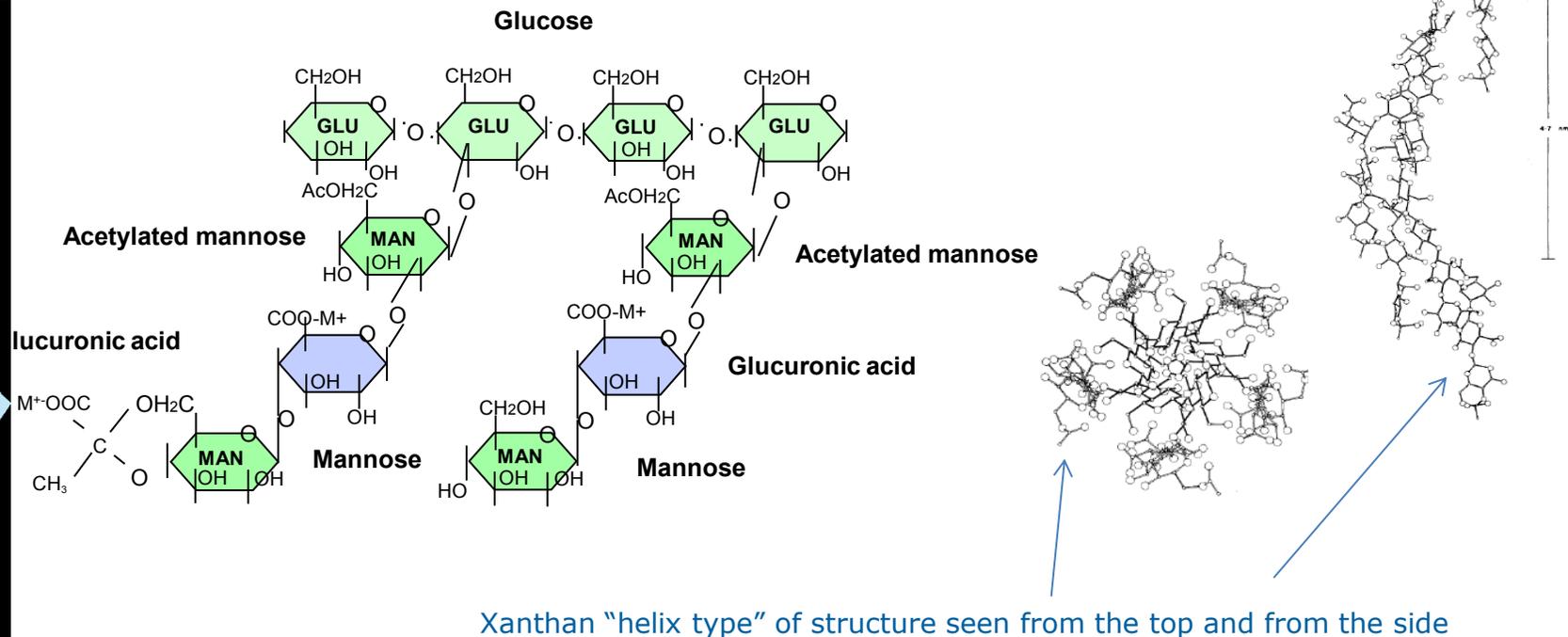
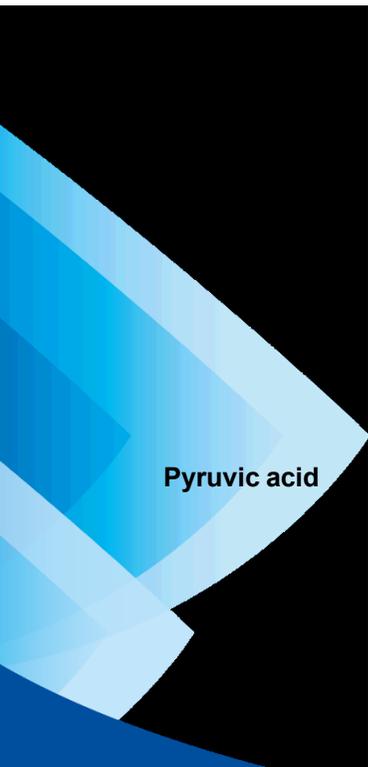


SAFAXAN RANGE: PRODUCTION



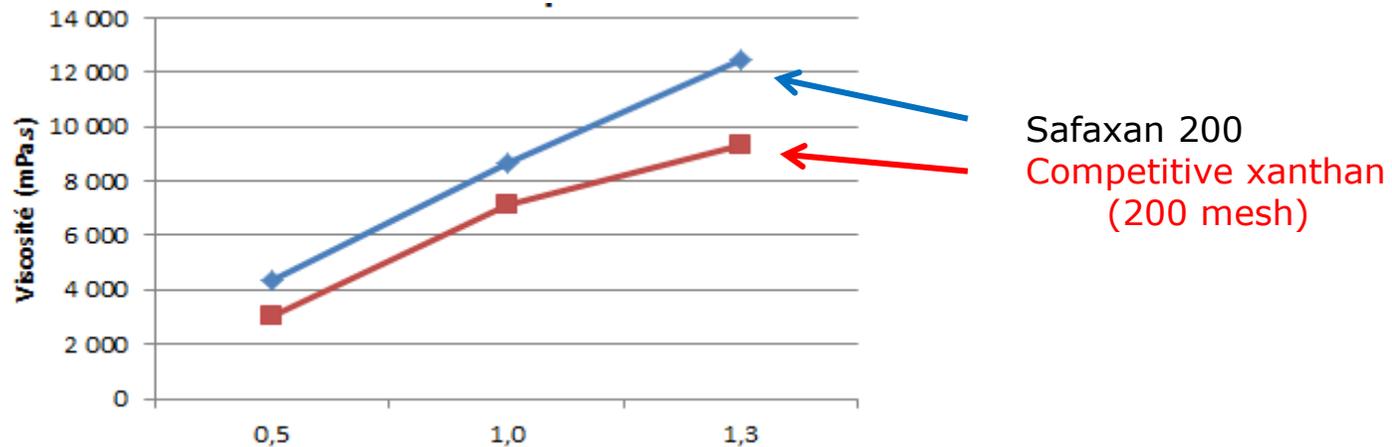
SAFAXAN RANGE: STRUCTURE

- Xanthan is made of β -1,4-glycosidic glucose units with side chains containing an acetylated mannose, a glucuronic acid and a terminal mannose
- Half of the terminal mannose carry a pyruvic acid residue
- Molecular weight is around 4×10^6
- Synergy with other polysaccharides (see Safimix GX)



SAFAXAN RANGE: MAIN PROPERTIES

- **Thickening** and **suspending** agent with as yield values



- **High stability** in extreme conditions (pH & temperature) but sensitive to cationic surfactants
- **High degree of pseudoplasticity**
- **Synergy with other polysaccharides** (see Safimix GX)

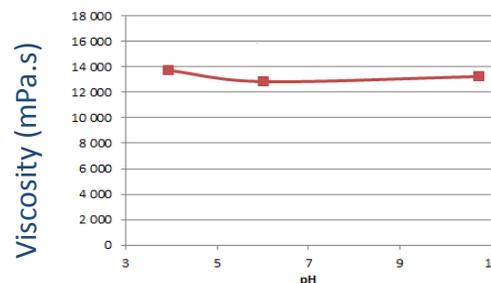
SAFAXAN RANGE: MAIN PROPERTIES

- At rest xanthan molecules adopt an equilibrium : hydrogen bounding creates a network able to suspend particles, droplets, air bubbles
- In presence of stress (movement), molecules are reoriented and the gel is broken
- When the flow occurs , the molecules turn toward the current and the viscosity decreases
- When the stress is removed, the molecules go back to equilibrium



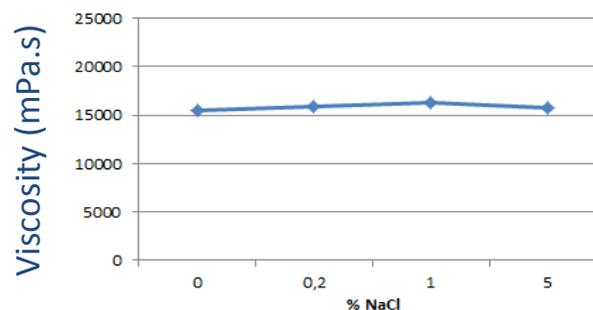
SAFAXAN RANGE: PH AND TEMPERATURE STABILITY

 Xanthan is stable over a broad range of pH



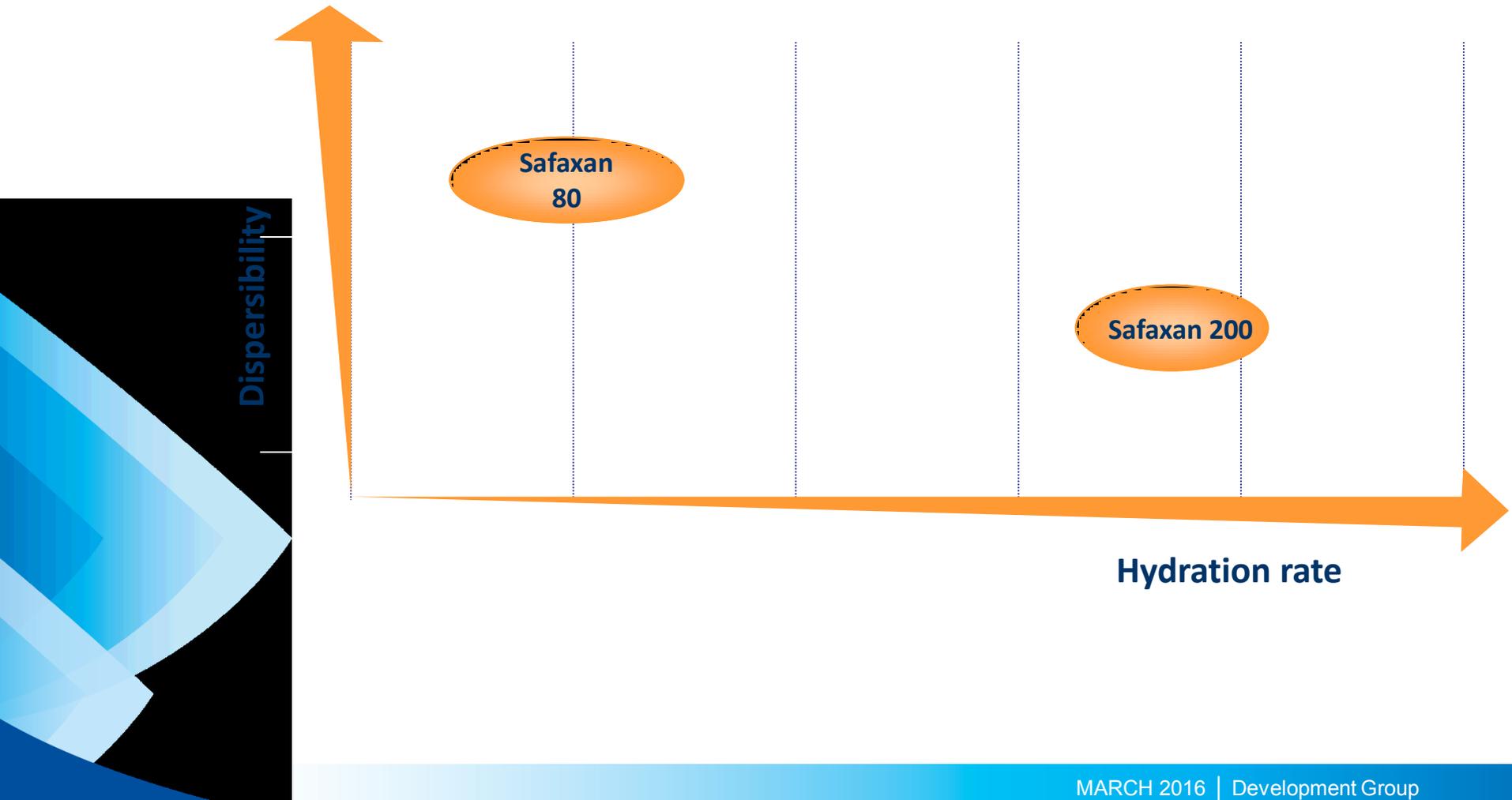
Safaxan 80 Clear (1%)

 Xanthan is also stable over a broad range of temperature (up to 90°C, data not shown here) and in presence of ions



Safaxan 80 (1%)

SAFAXAN RANGE: SOLUBILISATION AND HYDRATION



SAFAXAN RANGE: USAGE INSTRUCTIONS

Usage instructions

- Pre-disperse Safaxan in glycerin
- Once the mixture is homogeneous, add it to the water phase
- Xanthan can be added at room temperature
- It is recommended to use Xanthan in presence of electrolytes (salt stabilizes the helix structure)

Application formulae

- Face, neck, body, eye care formulae
- Hair care formulae
- Sun care, after sun and self-tanning formulae

Recommended usage

- 0.2 – 1%

Formulated in



Gloss & Glow

Golden Blond Hair Leave-on
Elixir

Wait & Glow

Antioxidant Radiance Mask

[Go to "Detailed application formulae"](#)



APPENDICES

GLOSS & GLOW: GOLDEN BLOND HAIR LEAVE-ON ELIXIR

- **Repairing and moisturizing actives**
- **Blond hair elixir**
- **Soft and dry touch**
- **Giving strength and vitality to your hair**



GLOSS & GLOW: GOLDEN BLOND HAIR LEAVE-ON ELIXIR

	Trade Name	Supplier	European I.N.C.I. Name	%
Phase A	Deionized water	/	Aqua	qsp 100
Phase B	Eastman AQ™ 48 Ultra Polymer		Polyester-5	2.00
Phase C	Safimix GX		Xanthan Gum, Guar Gum	0.35
	Safaxan 80		Xanthan Gum	0.05
	Glycerin 4810		Oleon	Glycerin
Phase D	Pellicer™ LB-30G	Asahi KASEI	Aqua, Sodium Dilauramidoglutamide Lysine, Butylene Glycol	0.30
Phase E	Silsoft 880		PEG-12 Dimethicone	1.00
	SF 1550		Phenyltrimethicone	2.00
Phase F	MinaCare® Pentiol Green		Pentylene Glycol	1.00
	Floraesters® K-20W		Hydrolyzed Jojoba Esters, Aqua	1.00
	Vitaminico 39561	Ravetllat	Parfum	0.20
	Vitamin E Acetate USP		Tocopheryl Acetate	0.20
Phase G	Yuzu Ceramide B		Butylene Glycol, Aqua, Citrus Junos Fruit Extract	1.00
	IPF-100K		Aqua, Butylene Glycol, Porphyra Yezoensis Extract	1.00
	Sensicare® C 3000		Dehydroacetic Acid, Benzyl Alcohol	0.90
Phase H	Golden Lustre 8G08		Mica, Titanium Dioxide, Iron Oxide, Tin Oxide	1.00
	Glycerin 4810	Oleon	Glycerin	1.00
	Propylene Glycol	Cooper	Propylene Glycol	2.00



Silicone gel



Soft and dry touch



4 repairing and moisturizing actives



Pearlescent pigments

Go back to "Usage instructions"



WAIT & GLOW: ANTIOXIDANT RADIANCE MASK



Creamy gel texture



Protective, moisturizing, softening and illuminating actives



Thanks to CaCl₂ solution, emulsion instantaneously becomes a mask that can be easily removed like a « second » skin



WAIT & GLOW: ANTIOXIDANT RADIANCE MASK



	Trade Name	Supplier	European I.N.C.I. Name	%
Phase A	Deionized water	/	Aqua	qsp 100
Phase B	Safalgin		Sodium Alginate	2.00
	Safaxan 80		Xanthan Gum	0.50
	Glycerin 4810	Oleon	Glycerin	1.00
	Propylene Glycol	Cooper	Propylene Glycol	3.00
Phase C	Sympatens TRH-400	KOLB Member of the KLK Group	PEG-40 Hydrogenated Castor Oil	1.50
	Neossance® Squalane		Squalane	3.00
	Intense Relaxing FC10134	Symrise	Parfum	0.20
Phase D	Clareium 100SW		Synthetic Fluorophlogopite, Titanium Dioxide, Tin Oxide	0.50
	Glycerin 4810	Oleon	Glycerin	2.00
Phase E	MandarinClear		Butylene Glycol, Aqua, Citrus Reticulata (Tangerine) Peel Extract	1.00
	NewAple		Aqua, Butylene Glycol, Artemisia Princeps Leaf Extract	1.00
	Phe'Nostress Bio		Rosa Canina Fruit Extract, Water, Glycerin, Potassium Sorbate, Sodium Benzoate	1.00
	Biopol PB12		Methylparaben, Ethylparaben, Phenoxyethanol	1.00
	Brilliant Blue FCF 85% E133 1% aqueous solution	Symrise	C.I. 42090	0.08



Oil / Water emulsion



Low oil phase



Association of 3 actives:

- Brightning and glowing active
- Soothing active
- Antioxidant active

Go back to "Usage instructions"

