



*AGRANA's STARCHES  
for DECORATIVE COSMETICS*

*AGRANA STARCH*





## PRODUCT OVERVIEW

PRODUCT NAME	INCI	Addition of starch BEFORE / AFTER emulsification
<b>BOILING-RESISTANT STARCHES</b>		
CORN PO <sub>4</sub> PH "B"	<i>distarch phosphate</i>	BEFORE
RICE PO <sub>4</sub> NATURAL	<i>distarch phosphate</i>	BEFORE
RICE NS	<i>dimethylimidazolidinone rice starch</i>	BEFORE
<b>NATIVE STARCHES</b>		
MAISITA 9040	<i>zea mays (corn) starch</i>	AFTER
REISITA NATURAL	<i>oryza sativa starch</i>	AFTER
TAPIOCA NATURAL	<i>tapioca starch</i>	AFTER
MAISITA 21.001	<i>zea mays (corn) starch</i>	AFTER
<b>LIPHILIC STARCHES</b>		
AGENAFLO 9050	<i>corn starch modified aluminum starch</i>	AFTER
AGENAFLO OS 9051	<i>octenylsuccinate</i>	AFTER
<b>ORGANIC CERTIFIED PRODUCTS</b>		
MAISITA 9060 – organic maize starch	<i>zea mays (corn) starch</i>	AFTER
AGENAJEL 21.387 – organic waxy maize starch	<i>zea mays (corn) starch</i>	AFTER
ORGANIC TAPIOCA NATURAL – organic tapioca starch	<i>tapioca starch</i>	AFTER
AGENAMALT 20.233 – organic maltodextrin DE6	<i>maltodextrin</i>	BEFORE
AGENAMALT 20.235 – organic maltodextrin DE19	<i>maltodextrin</i>	BEFORE

### NATURALITY

COSMOS, NaTrue  
COSMOS, NaTrue

COSMOS  
COSMOS  
COSMOS

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ORGANIC



## AGRANA'S STARCHES FOR DECORATIVE COSMETIC

### THE FINEST BOTANICAL POWDERS for COSMETICS

AGRANA has a broad experience with starches in personal care.

AGRANA's name is synonymous with refinement of NATURAL, RENEWABLE RAW MATERIALS.

### Green ingredients



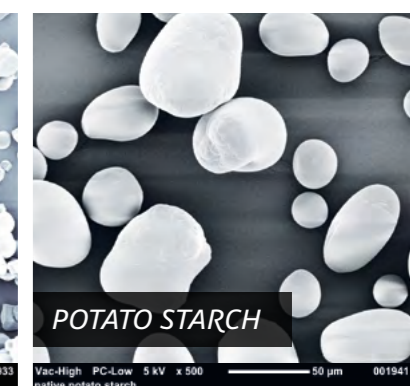
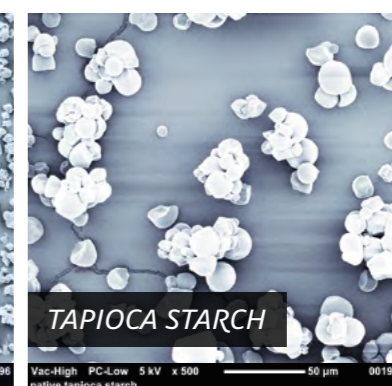
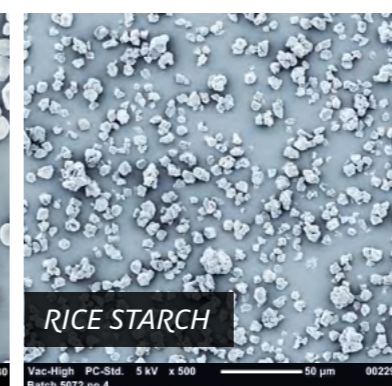
**AGRANA STARCHES** are green alternatives SILICONS and mineral-oil based ingredients like NYLON/ small micro-plastic



**SUSTAINABLE PRODUCTS**  
Non-GMO  
Naturally derived and safe



**GREEN ALTERNATIVES**  
Gluten-free  
Exempt from REACH  
Non animal tested  
Vegan







## OIL ABSORPTION

The ability of ingredients used in decorative cosmetics to exhibit oil absorption properties is vital in maintaining a long-lasting, even matte appearance on the skin.

When tested with Jojoba Oil, which is often regarded as the vegetable oil that most closely resembles human sebum, rice starches were shown to have particularly high oil absorption.

### Information



**RICE STARCHES**  
can absorb more oil than  
corn or tapioca starch.

	<b>ABSORPTION g</b> <i>Jojoba oil / 10 g starch</i>	
	<i>g</i>	<i>ml/g*</i>
Talkum Food VWR	3,7	0,43
Talc Imperial 1820 LBC	3,7	0,43
Talc IMB 1886 LBC	5,2	0,60
AGENAFLO OS 9051	4,0	0,47
AGENAFLO 9050	4,2	0,49
CORN PO <sub>4</sub> PH"B"	4,3	0,50
MAISITA 9040	4,3	0,50
TAPIOCA NATURAL	4,3	0,50
REISITA NATURAL	5,9	0,69
D.S.A. 7	5,5	0,64
RICE PO <sub>4</sub> NATURAL	6,3	0,73

\*jojoba oil has a density of approx. 0,86 g/ml

## NATURAL and safe

Current trends push the formulator to seek alternative ways to create the features and benefits the customer has come to expect in their emulsions, without the bad press ingredients / INCI labelling. Especially Distarch Phosphate provides an interesting alternative approach

- equal particle size and shape to Nylon powders, an effective substantial replacement
- provides the emulsion with the light, non-occlusive, fluid texture, perfect silicone alternative
- distarch phosphate allows cost reductions without compromising the formula (up to 50% of the silicone elastomer can be interchanged)
- An alternative talc replacement on both partial and full replacement whilst maintaining or enhancing the sensory perception in the final formulation



## APPLICATIONS



### POWDER PRODUCTS (LOOSE AND PRESSED)

Fine powders gently provide a mattifying appearance and fix make-up. Starches provide a (partial) alternative to talc and mica. Starches can

- absorb sebum
- enhance skin feel
- and improve the stability of pressed powders

Corn starch has a similar particle size range to that of mica (2 – 25µm) whereas rice starches are even finer (approx. 8µm) and exhibit an extraordinary soft-touch. The large surface allows a fine distribution of both functional and active ingredients.



### ANHYDROUS PRODUCTS

Starches reduce the greasy feeling after applying the cream to the skin.

In applications like lipsticks, rouges and pencils starches are added in order to achieve further even and truer colour pay-off. Lipophilic Starches can be used to give a more matte appearance.



### EMULSION PRODUCTS with boiling resistant starches with lipophilic starches with native starches

#### BOILING RESISTANT STARCHES

The optimum production technique for these starches is to disperse them in the aqueous phase and stir until emulsification occurs. These starches absorb and adsorb some of the water phase. Due to the adaptive properties of these starches some of the oil phase then is attached to the water-starch-phase during emulsification. This results in slow release of the emulsion on application.

#### BENEFITS OF USING LIPOPHILIC STARCHES IN EMULSION PRODUCTS

- Pleasant and silky-soft touch
- Enhanced efficacy of active skin care ingredients
- Long lasting moisturising effect
- Improved spreadability
- Mattifying effect – reduces the shine imparted by oils and waxes used in oil phase

After a detention time of 15 minutes, if necessary under additional stirring, this pre-mix should be transferred into the corresponding emulsion phase.

Lipophilic starches are added after emulsification and mitigate greasy feel of oil phase ingredients.



### NATIVE (ORGANIC) STARCHES

Can be added prior to or post emulsification to achieve different effects. When added prior to emulsification they provide a natural thickening and emulsion stabilisation. The granules swell with heat and then gelatinise and rupture providing the viscosity. When added post emulsification (approx. 40°C), the starch maintains its granular form giving a silky skin feel.

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[WWW.AGRANA.COM](http://WWW.AGRANA.COM)

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Version 03/2019