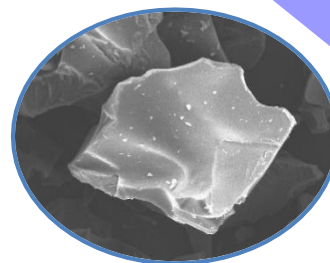
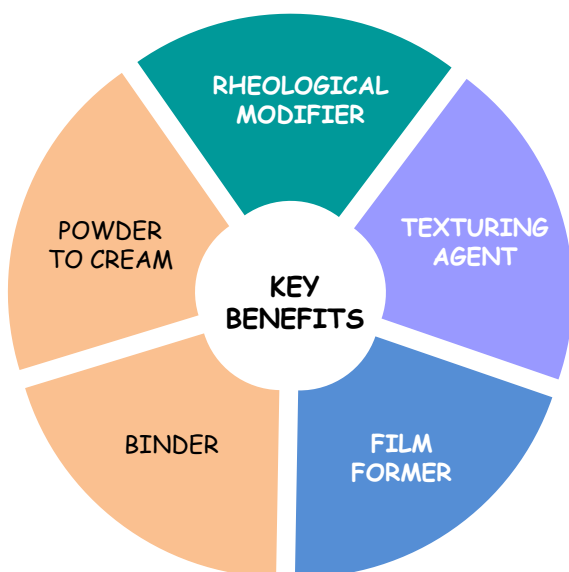


COMPOSITION	
INCI Name	ORYZA SATIVA (RICE) STARCH
CAS Number	9005-25-8
EC Number	232-679-6



## Chemical and physical properties

- White powder
- Biopolymer obtained from rice
- Waxy pregelatinised starch
- Biodegradable
- Fine particle size between 2 and 8  $\mu\text{m}$
- Smooth surface and polyhedral shape
- Bulk density  $\approx 0,4\text{--}0,5 \text{ g/cm}^3$
- pH (7% in water)  $\approx 5,5\text{--}7,5$
- 0,5% of proteins

## Formulation

- **pH:** stable over a pH range of 4 to 10
- **Heat:** stable up to 100°C
- **Freeze-thaw:** stable
- **Salts:** compatible
- **Alcohols:** up to 10%
- **Surfactants:** compatible with polyglycerol esters of fatty acids, sucrose esters, amino acid based surfactants, incompatible with polysorbate
- **Untreated and treated pigments:** compatible with all DAITO's treatments
- **Film formers:** compatible with acrylic and cellulose derivatives
- Pearls, glitters : compatible
- Beads : compatible with CELLULOBEADS, MAKIBEADS

## Cosmetic benefits

- Forms a moisture retention film on the skin
- Provides transfer resistance
- Promotes partial substitution of waxes and oil to give stable lighter textures
- Gives a soft and silky touch
- Conditioning and substantive action

## Use guideline

- Swells in water
- No neutralisation
- Yields translucent to opaque gel
- Cold and heat processable
- Heat at 90°C to develop suspensive properties
- Predisperse into polyols to prevent lumps formation and obtain fast swelling in water. Add the premix in water under low shear (500 tr/min).

• Small addition of MAKIGREEN SWELL RICE into a formulation containing MOISPRAY C gives a soft and silky touch

Use levels: 0,5-5%

### Pourable emulsion

Use level: 0,5-7%

### Pourable colored emulsion:

No pigment grinding

No solvent

Use level: 0,5-7%

### Emulsion gel

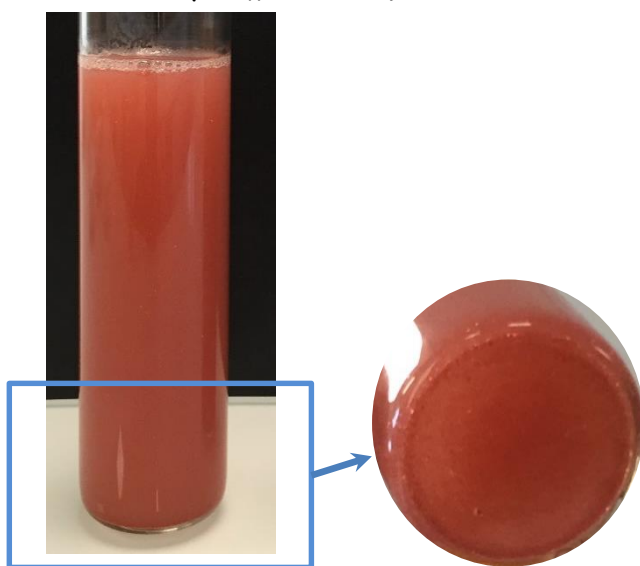
Use level: 0,5-7%

**Powder to cream formulations:** Prepare a gel of MAKIGREEN SWELL RICE. Add the hydrophobic treated powders under stirring. Stir until a powder is formed. The mixing time has to be optimized for each formulation and type of mixer. Over-mixing may lead to the production of a cream.

Use level: 3-4%

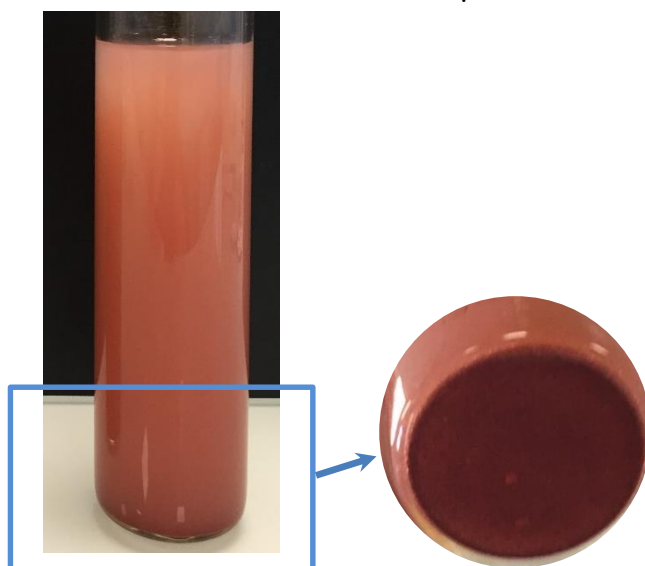
## Suspensive properties

Gel formation at 90°C



t = 48 hours

Gel formation at room temperature



t = 48 hours

## Applications

### SKIN CARE

DO E421 Emulsion cleansing gel

### POWDER TO CREAM FORMULATIONS

DE E409 Eyeliner powder to cream

### POURED COLORED EMULSION

DP E404 Watercolor make-up  
DP E417 Watercolor foundation

### SKIN CARE

DO E406 Natural protective cream

## Safety and regulatory information

**Material Safety Data Sheets** are available for all DAITO KASEI products.

**REACH:** Starch derivatives are exempted from registration.

Oryza sativa (rice) starch is listed on major chemical inventories such ICID, CosIng, TSCA, IECIC2015, KCID, AICS, DSL.

## For additional information

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