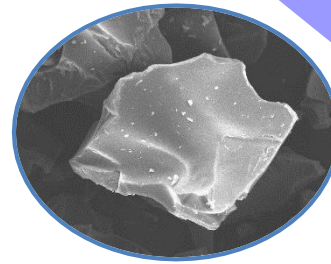
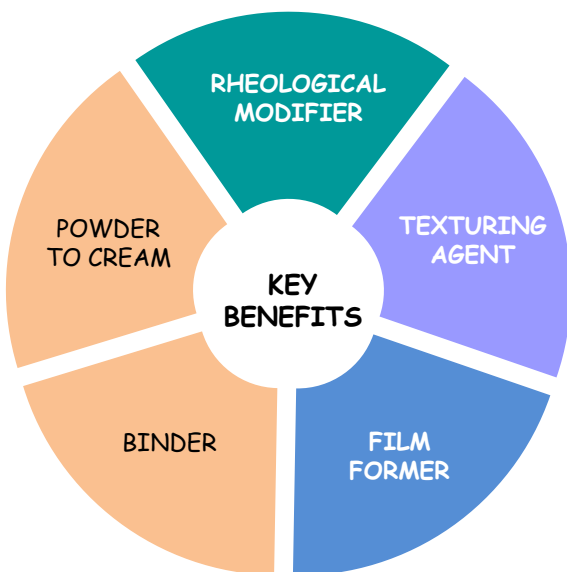


COMPOSITION	
INCI Name	ORYZA SATIVA (RICE) STARCH



Chemical and physical properties

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

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%

Formulation

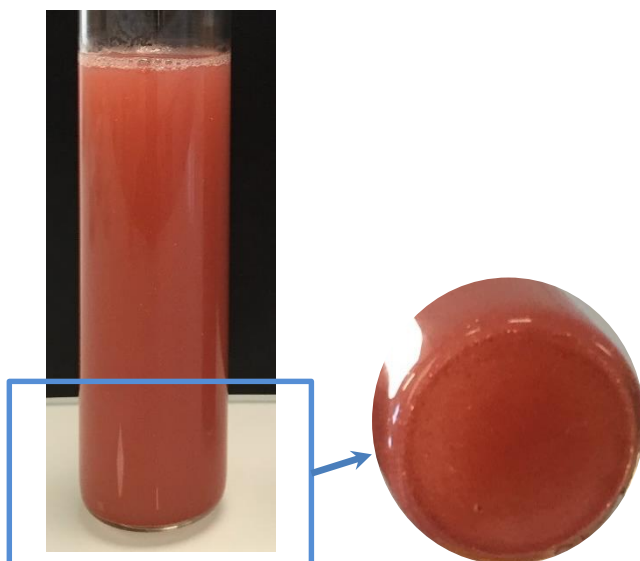
- **pH:** stable over a pH range of 4 to 10
- **Heat:** stable up to 100°C
- **Freeze-thaw:** stable
- **Salts:** compatible
- **Alcohols:** up to 10%
- **Surfactants:** compatible with polyglycerol esters of fatty acids, sucrose esters, amino acid based surfactants, incompatible with polysorbate
- **Untreated 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

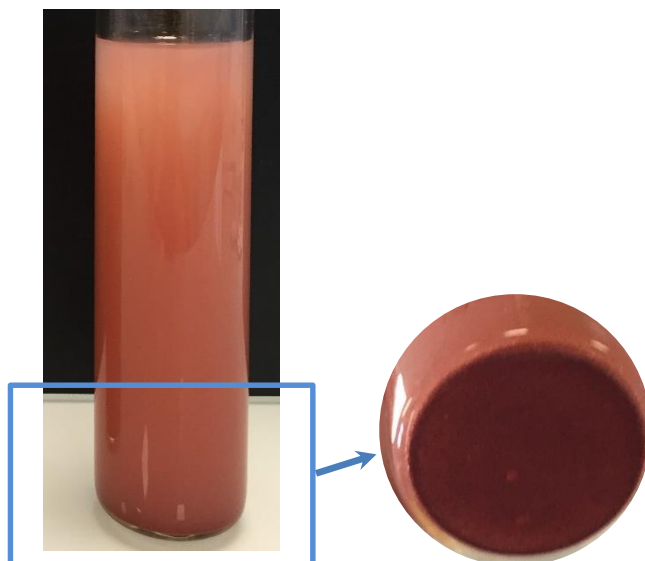
Suspensive properties

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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