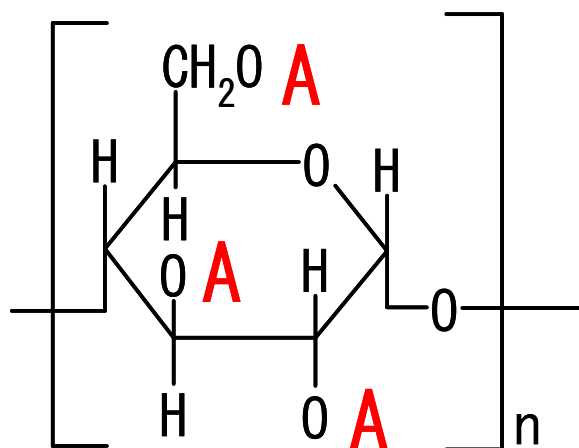


Product Name	Rheopearl KL2
Chemical Name	Dextrin Palmitate
INCI Name	Dextrin Palmitate
Chemical Structure	



A: Palmitoyl group or Hydrogen

n: Degree of Polymerization

Safety data

We don't have any data about Rheopearl KL2. But we have safety data about Dextrin Palmitate made with different catalyst (Trade Name: Rheopearl KL).

Patent information

Chiba Flour Milling Co., Ltd. in Japan is the original manufacturer of Dextrin Palmitate in the world. Chiba Flour Milling Co., Ltd have a patent concerning Dextrin Palmitate.

Manufacturer

Chiba Flour Milling Co., Ltd.
17, Shinminato, Mihama-ku, Chiba-city, Chiba 261-0002 Japan
Phone: 81-43-241-0108 Fax : 81-43-245-1781

Cosmetic Raw Material

Rheopearl KL2



MAIN FUNCTION

- Gelling of oils: Transparent & Hard gel
- Increase in viscosity of oils
- Stabilization of emulsion system
- Pigment dispersion aid
- Rheological modification of wax

Rheopearl KL2



Chiba Flour Milling Co., Ltd.
17, SHINMINATO, MIHAMA-KU, CHIBA-CITY, 261-0002 JAPAN
URL <http://www.chiba-seifun.co.jp>

MAIN FUNCTION

1. Gelling of oils
2. Increase in viscosity of oils
3. Stabilization of emulsion system
4. Pigment dispersion aid
5. Rheological modification of wax

Function 1: Gelling of oils

Function 2: Increase in viscosity of oils

Effect and Application

1. Can make **transparent hard oil-jells**.
 2. It can be restored completely after heat again and leave it, even if collapse oil jells.
 3. Additional effect works as improver of **Reduction of tackiness, greasy/oily feel, Skin adhesion, Texture of spreadability**.
- Application: **Lip product, Oil cleansing gel, Massage oils etc.**

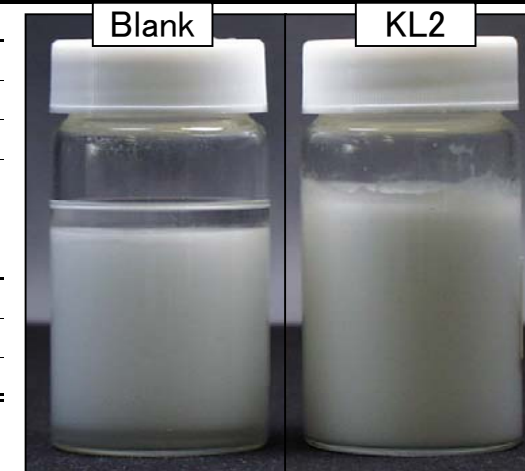
Melting point and Gel strength

Oil	Melting Point	10% KL2 Gel Strength
Paraffins		
C11-12 Isoparaffin	60°C	15g
Mineral Oil 55 Vis.	60°C	170g
Mineral Oil 70 Vis.	80°C	200g
Mineral Oil 350 Vis.	85°C	365g
Squalane	80°C	220g
Alcohol CH3 (CH2) XOH		
Octyldodecanol	80°C	300g
Glycerin Ester R1COO-CH2CH(OCOR2) CH2OCOR3		
Glyceryl Trioctanoin	70°C	340g
Caprylic/Capric Triglyceride	80°C	410g
Ester RCOOR'		
Isononyl Isononanoate	65°C	90g
Isopropyl Miristate	60°C	160g
Isotridecyl Myristate	75°C	185g
Isopropyl Palmitate	65°C	220g
Cetyl Octanoate	70°C	230g
Isostearyl Myristate	80°C	230g
Octyldodecyl Myristate	85°C	295g
Octyldodecyl Erucate	80°C	360g
Diisostearyl Adipate	90°C	370g
Jojoba Oil	100°C	460g
Neopentyl Glycol Ester R1COO-CH2C(CH3)2CH2OCOR2		
Neopentyl Glycol Diethylhexanoate	65°C	205g
Neopentyl Glycol Dicaprate	70°C	240g
Silicone		
Dimethicone	Not Dissolve	----
Cyclomethicone	Not Dissolve	----
Diphenyl Dimethicone 1)1) FZ-209(NIHON UNICAR)	60°C	250g

*All measurements were done 30 degree C by using Rheometer. Φ 20mm

Function 3: Stabilization of emulsion system

Stabilization of Water/Silicone Emulsions	
Rheoparl KL2	2
ISOTRIDECYL ISONONANOATE	5
CYCLOMETHICONE	20
Dimethicone Copolyol (Polyoxyethylene Methylpolysiloxane Copolymer)	2
NaCl	1
Water	63
1,3-Butylene Glycol	7
TOTAL	100



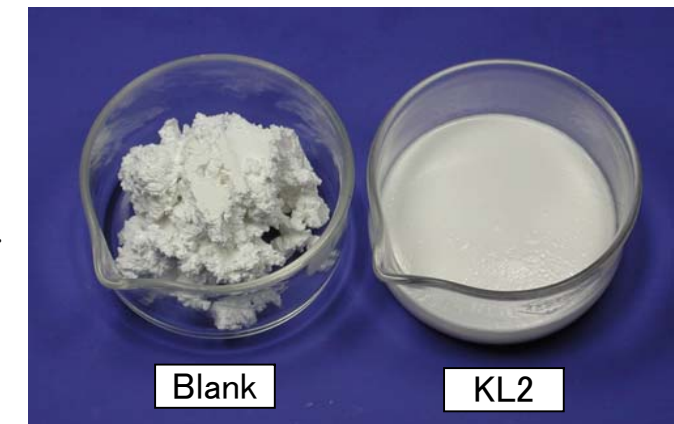
Rheoparl KL2 works as emulsion stabilizer to w/o system, especially to w/s system. Mechanism: Prevents water-phase particle from fusing and separating by increasing viscosity of outer phase (oil-phase).

Function 4: Pigment dispersion aid

How to prepare pigment-base

Micro titanium dioxide	50%
Mineral oil	50%
Rheoparl KL2	2%

Rheoparl KL2 prevents pigment aggregation. Mechanism: Rheoparl KL2 attaches onto the hydroxyl group at the pigment surface via hydrogen bonding.



Function 5: Rheological modification of wax

Rheoparl KL2 prevents crystallization of wax. **Rheoparl KL2 (TL2, TT2)** softens anhydrous systems containing wax (such as lipstick) by inhibiting the growth of wax crystals.

*On the other hand, **Rheoparl ISK2 (ISL2)** could modify the hardness of anhydrous systems containing wax

