

MiyoAQUA

Alginate Treated Pigments

- «No Make-up» Make-up
- Ultra Light Textures
- Make-up Rituals Layering Lighter Textures
- Dedicated for O/W or Water-Based Formulations



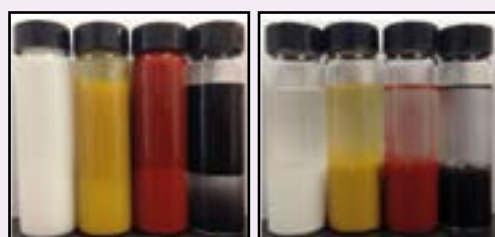
GENERAL INFORMATION

MiyoAQUA is a hydrophilic surface treatment based on alginate. This anionic polysaccharide is found naturally in oceans around the world in the cell walls of brown algae and kelp.

MiyoAQUA alginate surface treated pigments have excellent dispersibility and suspension in water leading to strong color development, prevention of color separation, and improved formulation stability. Formulation chemists are moving away from heavy feeling and moving toward light, fresh feeling to improve personal care formulations.

Many ultra-light feeling formulations are very low in viscosity where pigments may settle over time; MiyoAQUA pigments' ability to easily re-disperse and prevent hard caking allows for a quick shake prior to use as seen in many "milk" formulations popular in Asia.

STRONG HYDROPHILICITY



Untreated

MiyoAQUA

Untreated and MiyoAQUA colors were mixed in equal parts water and oil, shaken, and observed 15 minutes later. Surface tension gradients can cause untreated pigments to migrate back and forth between the oil (top) and water (bottom) phase. Untreated pigments can be seen in both the oil and water phase. MiyoAQUA colors are highly hydrophilic with a strong affinity to water and remain in the water phase; this may help improve final formulation stability.





EXCELLENT DISPERSIBILITY IN WATER



Untreated

MiyoAQUA

10% of untreated pigmentary TiO_2 and the same TiO_2 surface treated with alginate, MiyoAQUA White TSR was homogenized at 3000 rpm for 5 minutes, 20% PRIMROSE Red (hydrophilic silica coated red iron oxide as background) and 70% water. A drop of each mixture was placed between two glass slides and observed for white specks. MiyoAQUA White TSR exhibits significantly better dispersibility in water compared to untreated TiO_2 .

Surface Treatment	Chemical composition	Description	Main Benefits	Oil type Affinity	Typical Applications
MiyoAQUA	Algin	Hydrophilic	Strong hydrophilicity Good suspension quality in water Prevent color separation	Water	 Foundation  Lipstick  Eye or lip pencil  Natural origin

MiyoAQUA

Alginate Treated Pigments

MiyoAQUA O/W Foundation

OWC-G016

A fresh and light foundation that provides natural look.



	INCI	TRADE NAME	SUPPLIER	%
A	Water	Water	-	52.600
	Disodium EDTA	EDTA	Roth	0.300
	Glycerin	Glycerin	InterChimie	5.000
	Phenoxyethanol (and) Caprylyl Glycol (and) Chlorphenesin	Mikrokill Cos	Lonza / Masso	0.800
B	Titanium Dioxide (and) Aluminum Hydroxide (and) Algin	MiyoAQUA White TSR	Miyoshi Europe	9.000
	Iron Oxides (and) Algin	MiyoAQUA Yellow	Miyoshi Europe	1.500
	Iron Oxides (and) Algin	MiyoAQUA Red	Miyoshi Europe	0.400
	Iron Oxides (and) Algin	MiyoAQUA Black	Miyoshi Europe	0.100
	Xanthan Gum	Keltrol CG SFT	Azelis	0.300
C	Caprylic/Capric Triglycerides	Dub MCT 5545	Stearinerie Dubois	5.000
	Glyceryl Stearate	Glyceryl Stearate GMS Vegetal	Baerlocher	2.000
	Cetyl Alcohol (and) Glyceryl Stearate (and) PEG-75 Stearate (and) Ceteth-20 (and) Steareth-20	Emulium Delta	Gattefosse	5.000
	PEG-8 Beeswax	Apifil CG	Gattefosse	2.000
	Isononyl Isononanoate	Dub ININ	Stearinerie Dubois	16.000

PROCEDURE:

1. Solubilize EDTA in water and then add rest of Phase A ingredients.
2. Add pigments into Phase A under Turax (speed max/3 to 6 min). Disperse Keltrol CG-SFT under Turax into phase A.
3. Heat Phase AB to 70°C.
4. Heat Phase C to 70°C.
5. Add Phase C to Phase AB under stirring (Turbotest VMI, dispersion propeller).

Red Aqua Lip

LGL-B016

A light and strong colored water based Lipgloss.



	INCI	TRADE NAME	SUPPLIER	%
A	Water	Water	-	60.00
	Iron Oxides (and) Algin	MiyoAQUA Red	Miyoshi Europe	5.000
B	Glycerin	Glycerin	InterChimie	10.80
	1,3 Butylene glycol	Butylene Glycol	InterChimie	9.000
	Phenoxyethanol (and) Caprylyl Glycol (and) Chlorphenesin	Mikrokill Cos	Lonza/Masso	0.80
C	Aroma	Flavour Raspberry -		1.000
	Polyacrylamide & C13-14 Isoparafin & Laureth-7	Sepigel 305	Seppic	2.000
D	Silica	SB-300	Miyoshi Europe	2.000
	Styrene/Acrylates Copolymer	Dermacryl E	AkzoNobel/Masso	5.000
	Acrylates Copolymer	Dermacryl AQF	AkzoNobel/Masso	4.400

PROCEDURE:

1. Grind Phase A using Turax, 3 minutes.
2. Add Phase B to Phase A.
3. Add Phase C to Phase AB under stirring (Turbotest VMI, propeller disperser).
4. Add Phase D and E to Phase ABC under stirring (Turbotest VMI, propeller disperser).



Does Not Hardcake



Natural Origin



Easily Dispersed in Water

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