

Lipidure[®]-S、NA(for haircare)

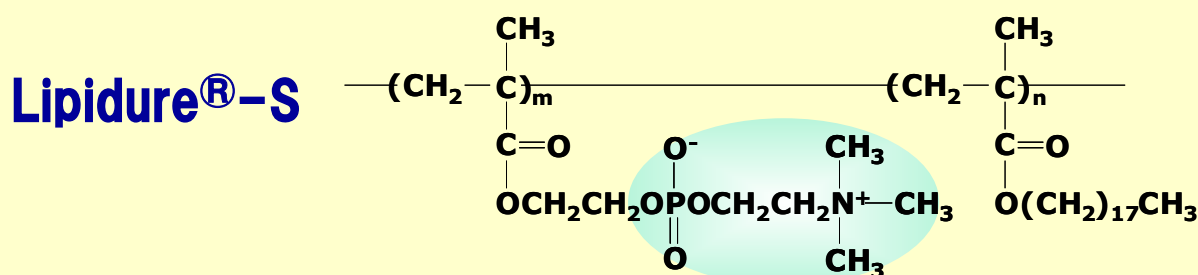
1 What is Lipidure[®]

Lipidure is the polymers which consist of 2-methacryloyloxyethylphosphorylcholine (MPC) which has the same structure as polar group of phospholipid, showing high hydrophilic nature and extremely high biocompatibility. Lipidure is widely used as a coating agent for artificial organ or eye care products due to high biocompatibility.

2 Properties of Lipidure[®]-S, NA

- ① Lipidure-S forms a polymer nano-sphere in aqueous solution and forms a lamella layers on the skin surface after drying due to self associating property.
- ② The lamellar layer formed on the hair surface makes damaged hair hydrophobic.
- ③ The lamella layer on the hair surface acts as a protective film and suppresses the outflow of the hair color agent.
- ④ Penetrates the inside of the hair and repairs the hair.

3 Product overview of Lipidure[®]-S, NA



Lipidure[®]-NA is the only hydrophobic polymer of Lipidure series. It is diluted into a multivalent alcohol to make it possible to disperse into water.

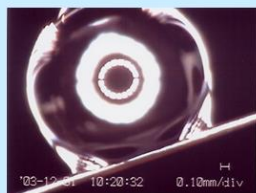
Product Name	INCI Name	Chinese INCI	REACH status	Active conc.
Lipidure [®] -S	POLYQUATERNIUM-61	Existing	Applying	100%
Lipidure [®] -NA	POLYQUATERNIUM-61, GLYCERIN, BUTYLENE GLYCOL, PCA ETHL COCOYL ARGINATE, WATER	Existing	Applying	5%

4 Wetting Behavior of Hair Specimens

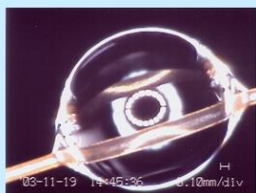
<< Test Method >>

One drop of water was placed on the hair specimens

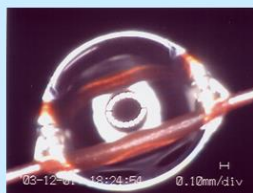
⇒The wetting of the specimens was observed under a Hyper microscope



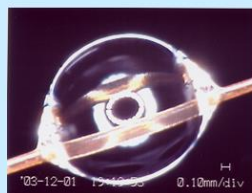
Healthy Hair



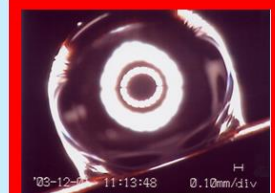
Damaged Hair



STAC
Treated Hair



Dimethicone
Treated Hair



Lipidure-NA
Treated Hair

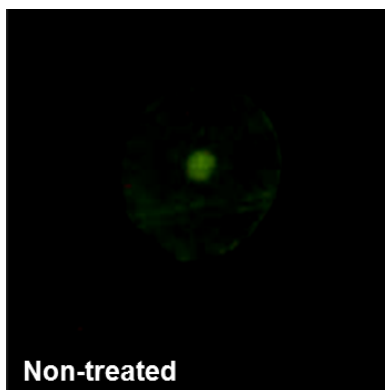
Lipidure-NA can restore the surface of damaged hair into healthy hair.

5 Penetration of Lipidure-NA

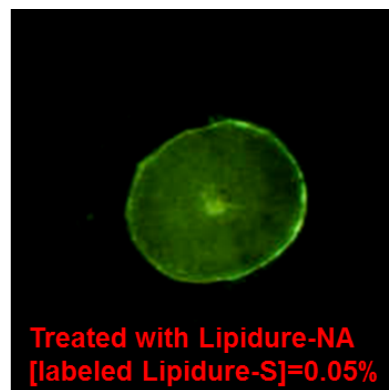
<< Test Method >>

Observation of a cross-section of the hair under a fluorescent microscope.

Lipidure-NA can penetrate into inside of damaged hair.



Non-treated



Treated with Lipidure-NA
[labeled Lipidure-S]=0.05%

6 Prevention of fading

<< Test Method >>

Wash the colored hair several times with water, after then evaluate the color visually



The lamella layer on the hair surface acts as a protective film and suppresses the outflow of the color agent.

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