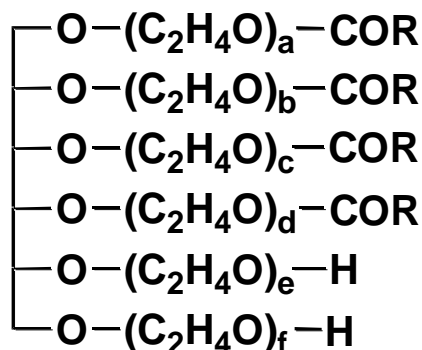


**Conditioning Booster****UNIOX<sup>®</sup> ST-40E**

**NOF CORPORATION**  
 Oleo & Speciality Chemicals Div.

Compliant with JSQI

**1 What is UNIOX<sup>®</sup> ST-40E?****Chemical Structure**

R: Oleate residues

 Added mole number of  
 ethylene Oxide(EO)  
 $= a+b+c+d+e+f \approx 40$ 

HLB = 12.5

**Concept****Conditioning Booster****Description**

Slightly yellowish Clear liquid

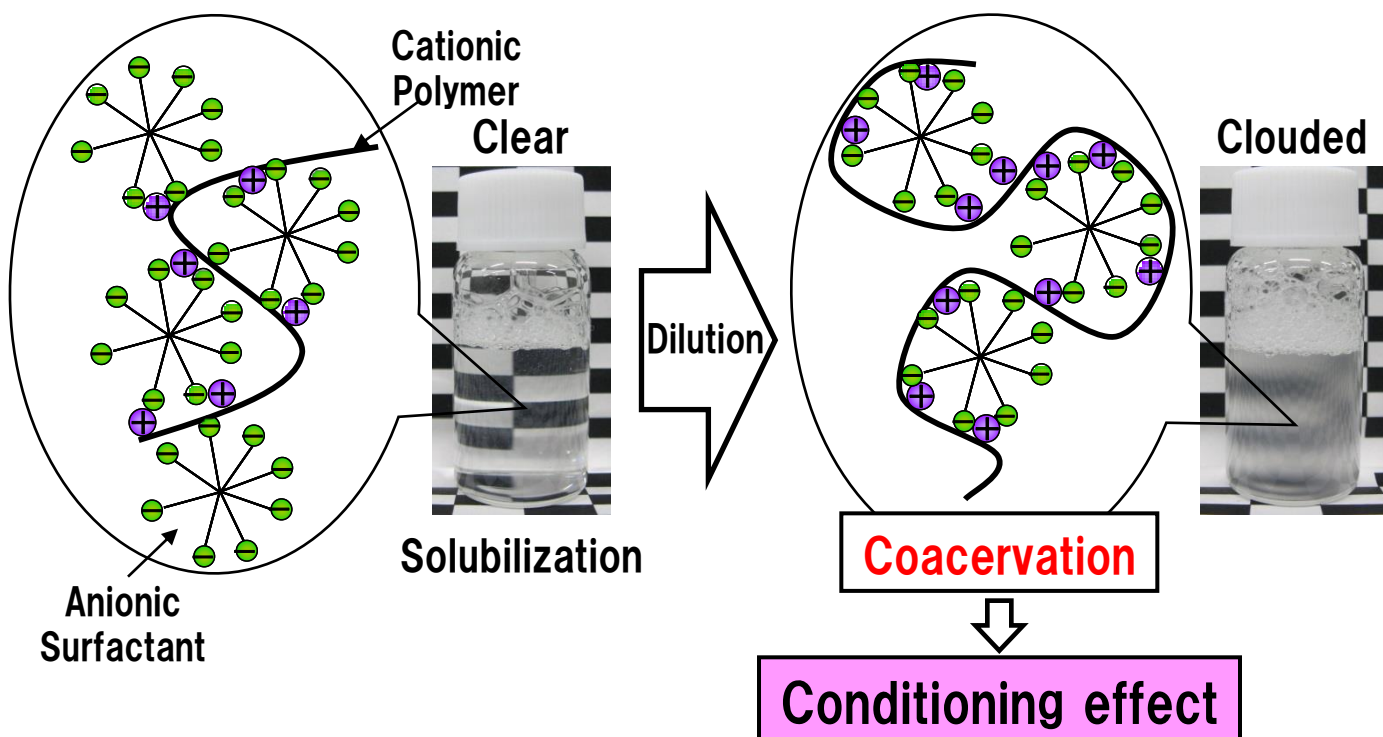
**INCI****SORBETH-40 TETRAOLEATE****Chinese INCI****山梨醇聚醚-40 四油酸酯****2 Characteristics**

- ① Enhances conditioning efficacy in body soap and shampoo.
- ② Provides moist feeling of the skin after washing off.
- ③ Provides amino acid surfactant base shampoo with high viscosity.
- ④ Provides rich elastic foam, due to long PEG chain.
- ⑤ Low irritation and high safety.
- ⑥ Easy to handle.

### 3 Coacervation in body soap or shampoo

Undiluted

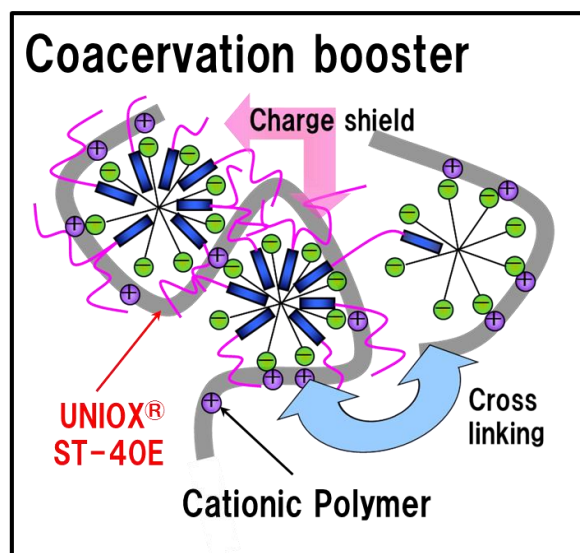
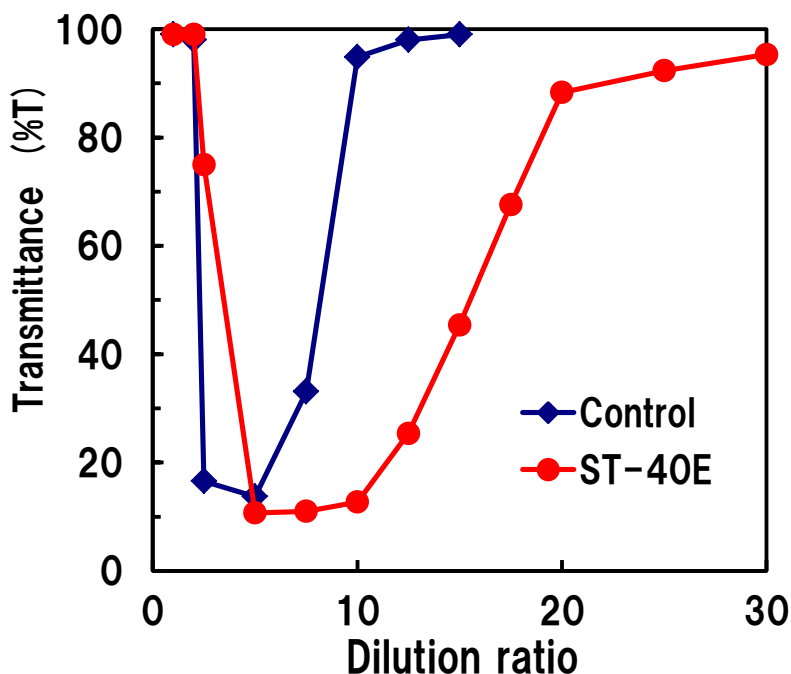
Diluted



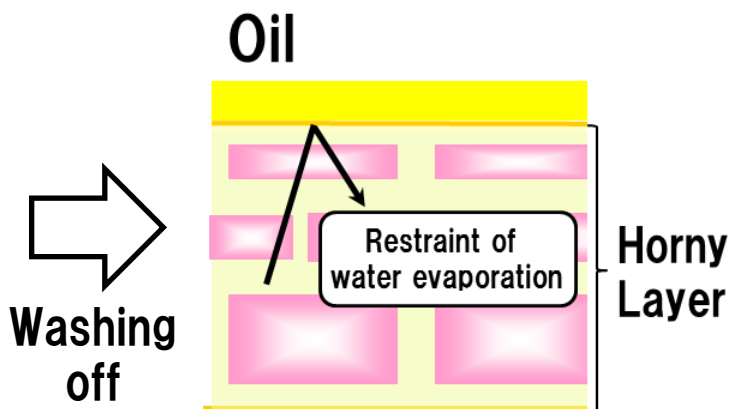
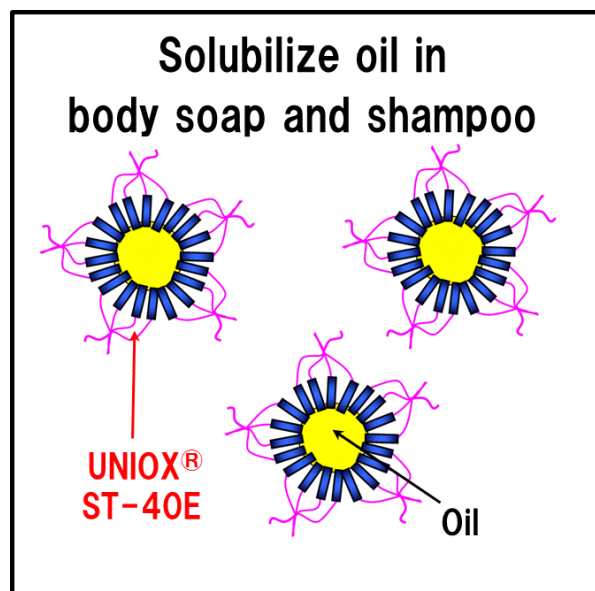
### 4 Coacervation foaming ability

<Method>

- ① Mixed anionic surfactant 7.0wt.%, amphoteric surfactant 5.0wt.%, **nonionic surfactants 3.0wt%** and cationized cellulose 0.5wt%, pH6.0 adjusted by citric acid.
- ② Diluted by tap water (40°C), then measure transmittance.



## 5 Solubilization ability



**Provides moist feeling to skin after washing off.**

## 6 Application

**Hair Shampoo (Clear type)**

7000 mPa·s (25°C)

	Ingredients	INCI / Chemical Name	wt%
A	-	WATER	balance
	-	POLYQUATERNIUM-10	0.4
B	NISSAN ANON <sup>™</sup> BDF-R	COCAMIDE PROPYLY BETAIN, WATER	10.0
	DIAPON <sup>®</sup> K-SG	SODIUM TAURINE COCOYL METHYLTAURATE, WATER	20.0
	SOFTILT <sup>®</sup> AS-L	SODIUM LAUROYL METHYLAMINOPROPIONATE, WATER	20.0
	UNISAFE <sup>™</sup> PGML	PROPYLENE GLYCOL LAURATE	2.0
	MACBIOBRIDE <sup>®</sup> MG-T	PEG-120 METHYLGLUCOSE TRIISOSTEARATE, WATER, TOCOPHEROL	1.0
C	UNIOX <sup>®</sup> ST-40E	SORBETH-40 TETRAOLEATE	3.0
	-	Perfume	1.0
D	-	CITRIC ACID	pH=6
<b>Total</b>			<b>100</b>

### 【Procedure】

1. Weigh ingredients for phase A and mix uniformly at R.T.
2. Heat to 80±5°C and add phase B.
3. Cool down phase A+B under 45±5°C.
4. Add phase C into phase A+B and mix uniformly at RT.

# Body Soap

	Ingredients	INCI / Chemical Name	wt%
A	-	WATER	balance
	-	HYDROXYETHYL CELLULOSE	0.60
B	NAA <sup>®</sup> -122	LAURIC ACID	10.00
	NAA <sup>®</sup> -142	MYRSTIC ACID	3.00
	NAA <sup>®</sup> -160	PARMITIC ACID	2.00
C	48% KOH	POTASSIUM HYDROXIDE (48%) , WATER	7.90
D	DIAPON <sup>®</sup> K-SF	SODIUM COCOYL METHYLTAURATE, WATER	4.00
	-	POTASSIUM COCYL GLYCINATE, WATER	4.00
	NISSAN ANON <sup>™</sup> BDF-SF	COCAMIDE PROPYLY BETAIN, WATER	2.00
	-	PEG-20 PYTOSTEROL	1.00
E	UNIOX <sup>®</sup> ST-40E	SORBETH-40 TETRAOLEATE	4.00
	MACADAMIA NUT OIL	MACADAMIA TERNIFOLIA SEED OIL	0.50
F	-	POLYQUATERNIUM-39	0.10
<b>Total</b>			<b>100</b>

## 【Procedure】

1. Weigh ingredients for phase A and mix uniformly at R.T.
2. Heat to 80°C and add phase B.
3. Add phase C into phase A+B, and mix uniformly at 80±5°C.
4. Add phase D and E and F into phase A+B+C, and mix uniformly at 80±5°C.

### Disclaimers

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