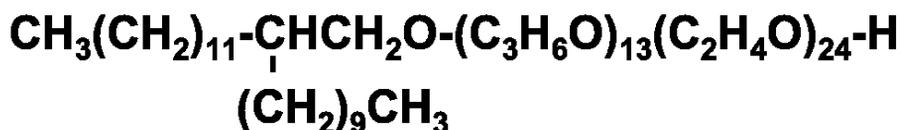


SOLUBULE™ GS-01

Compliant with JSQI

1 SOLUBULE™ GS-01

Chemical Structure



Concept

The Novel Solubilizer for various cold process application

Description

Slightly yellowish Clear liquid

INCI

PPG-13-DECYLTETRADECETH-24

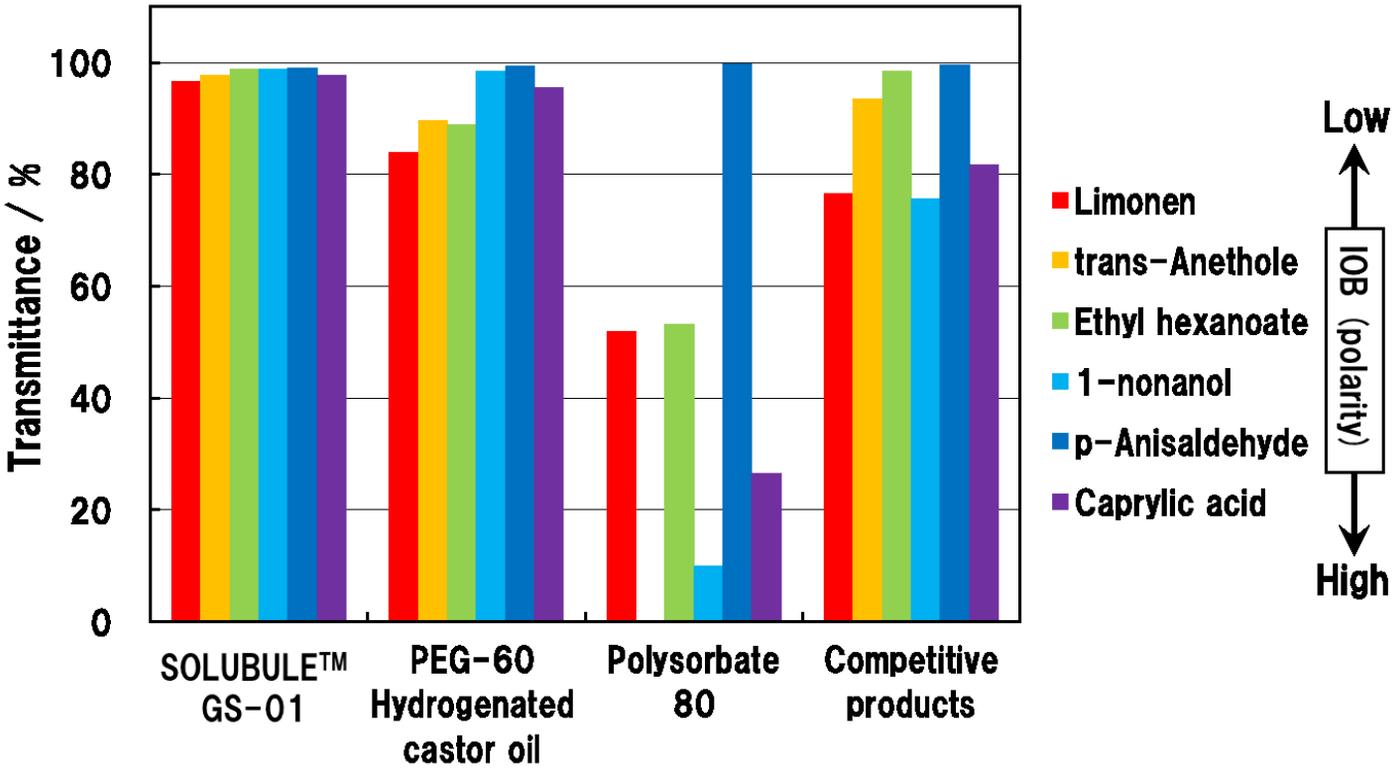
Chinese INCI

PPG-13-癸基十四醇聚醚-24

2 Characteristics

- ① It is very easy to handle because of liquid state at room temperature.
- ② SOLUBULE™ has higher solubilization ability against various types of oils than conventional solubilizer.
- ③ Wettability of the skin and hair can be improved, SOLUBULE™ can be applied to water-type make-up remover or hair-styling product.
- ④ SOLUBULE™ has no sticky feeling even when dosage is high.

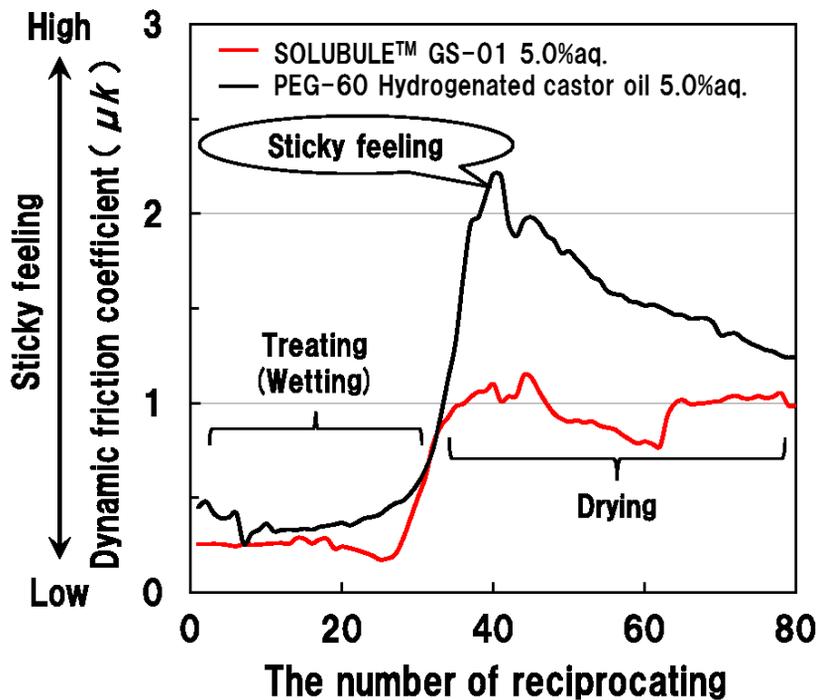
3 Solubilization ability against various types of oils



<Sample> Oil 0.5%, Solubilizer 2.0%, Water 97.5%

<Measurement> UV-Visible Spectrophotometer V-650 (JASCO Corporation) Wavelength :600nm

4 Measurement of sticky feeling on skin



<Sample>

SOLUBULE™ GS-01 : 5.0%aq.

PEG-60 Hydrogenated castor oil : 5.0%aq.

<Measuring instrument>

Static Friction Tester : Tribomaster TL201Ts (Trinity-lab. INC.)



Trinity-lab. INC. HP

<Measure condition>

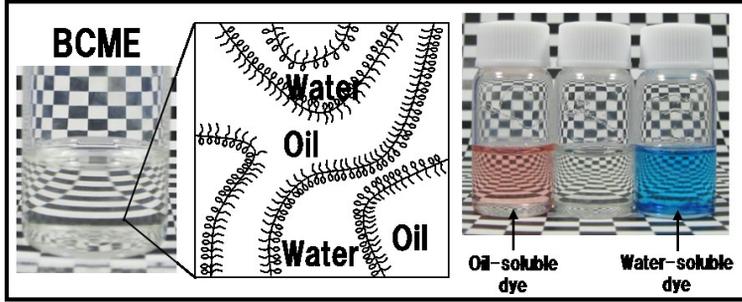
Sample : 25 μL Weight : 50g

Length : 30mm Speed : 30mm/sec

The number of reciprocating : 80

5 How to solubilize oils by BCME

① Preparation of BCME



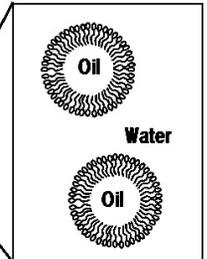
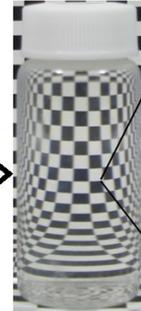
BCME	
Ingredients	wt%
Oil (Perfumes/Actives)	0.2
SOLUBULE™ GS-01	0.4
WILBRIDE® S-753D	0.4
WATER	0.4



WATER
98.6 wt.%



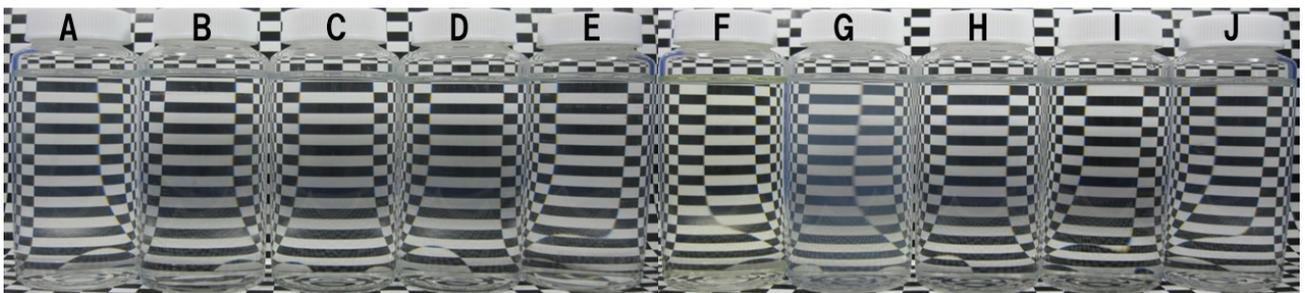
② BCME+WATER



6 Broad spectrum of solubilization

	Ingredients	Function	wt%
	Oil components	Perfume/Active	0.2
A	SOLUBULE™ GS-01	Surfactant	0.4
	WILBRIDE® S-753D	BCME Inducer	0.4
	WATER	-	0.4
B	WATER	-	98.6

A: d-Limonene
B: Tocopherol
C: Citrus
D: Camellia
E: Lemon
F: Lavender
G: Bergamot
H: Rose
I: Floral
J: Salt taste



7 Solubilization for water-ethanol formulation

Product name	INCI	wt.%		
		A	B	C
-	FRAGRANCE*1	1.0	1.0	1.0
SOLUBULE™ GS-01	PPG-13-DECYLTETRADECETH-24	1.0	-	0.8
UNILUBE® 20MT-2000B	PPG-20-DECYLTETRADECETH-10	-	1.0	0.2
-	ETHANOL	20.0	20.0	20.0
-	WATER	78.0	78.0	78.0
Solubilization *2				
*1 Confirmed with ten different types of fragrance (floral and citrus) *2: Decision of Solubilization Good: Transmittance Over 90% NG: Transmittance Under 90% V-650 (JASCO Corporation) Wavelength :600nm		NG	NG	GOOD

8 Application

Squalane high content Nano-Lotion

	Product name	INCI	wt%
A	-	SQUALANE	3.0
	WILBRIDE® S-753D	PEG/PPG/POLYBUTYLENE GLYCOL-8/5/3	3.0
	NOFABLE® AO-85S	OLEYL ALCHOL	0.4
	SOLUBULE™ GS-01	PPG-13-DECYLTETRADECETH-24	2.5
	UNILUBE® 20MT-2000B	PPG-20-DECYLTETRADECETH-10	1.0
	RG·CO·P™	GLYCERIN	5.0
	-	WATER	3.0
B	-	WATER	82.1
Total			100

【Procedure】

Weigh ingredients for phase A and mix uniformly at R.T.. Add phase A into phase B at R.T.

Disclaimers

The contents of this catalog were made based on documents, information and data which are available at present. However, NOF CORPORATION does not acknowledge and undertake any guarantees for any data, evaluation results, chemical hazards etc. Also, the contents are intended to normal use of the products. In case of special handling, you should take appropriate measures to ensure the safety. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

NOF CORPORATION

Oleo & Speciality Chemicals Div.

Head Office

Yebisu Garden Place Tower, 20-3 Ebisu 4-chome, Shibuya-ku, Tokyo 150-6019
 TEL.+81-3-5424-6704 FAX.+81-3-5424-6810 <http://www.nof.co.jp/>