

Compliant with JSQI

**UNIGLY™ MC-208**
 NOF CORPORATION
**1 What is UNIGLY MC-208 ?**

**UNIGLY MC-208** is a nonionic surfactant with medium chain partial glycerides whose fatty acids are derived from vegetable oil.

**UNIGLY MC-208** can provide your formulation with

”Refreshing & Emollient feeling”, that’s why it is suitable for rinse off products.

**INCI****PEG-8 CAPRYLIC/CAPRIC GLYCERIDES****Concept***Refreshing & Emollient Agent***2 Characteristics & Properties**

- ① Caprylic and Capric acid are derived from vegetable oil.
- ② Transparent liquid, and low freezing point (under 10°C) provides your products with high stability in low temperature.
- ③ Water-soluble more than 3.0wt% (HLB=15, Griffin).
- ④ Refresh feeling when washing off.
- ⑤ Provide high cleansing efficacy with Water-based Make-up cleansing.
- ⑥ Enhancing cleansing efficacy in combination with water-soluble polymers (patent applied for).
- ⑦ Provide emollient feeling after washing off.

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### 3 Solubility ( 25°C )

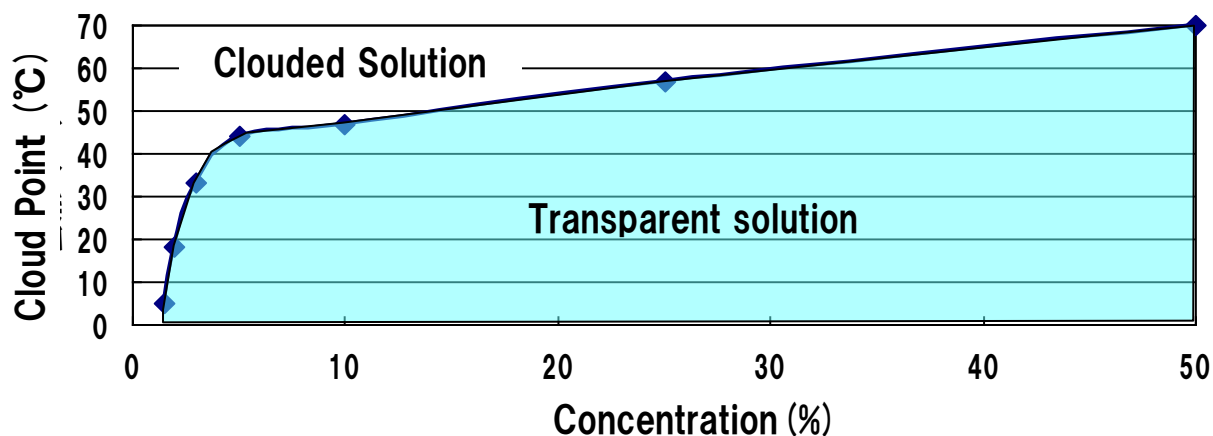
| <u>Solvent</u>               | <u>10%</u> | <u>25%</u> |
|------------------------------|------------|------------|
| Ethanol                      | ○          | ○          |
| 1,3-BG                       | ○          | ○          |
| Glycerin                     | ×          | ×          |
| PEG # 400                    | ○          | ○          |
| Oleic acid                   | ○          | ○          |
| Oleyl alcohol                | ○          | ○          |
| Caprylic/Capric triglyceride | ×          | ×          |
| Octyl palmitate              | ×          | ×          |
| Cyclomethicone               | ×          | ×          |
| Mineral oil                  | ×          | ×          |
| Water                        | ○          | ○          |

### 4 Cloud point

UNIGLY MC-208 is a PEG type nonionic surfactant with cloud point. Less than 2.0wt% water solution is clouded at room temperature.

| Concentration (wt%) | 1.0 | 1.5 | 2.0 | 3.0 | 5.0 | 10 | 25 | 50 |
|---------------------|-----|-----|-----|-----|-----|----|----|----|
| Cloud point         | 3 ↓ | 5   | 18  | 33  | 44  | 47 | 57 | 70 |

\*representative data



## 5 Cleansing test

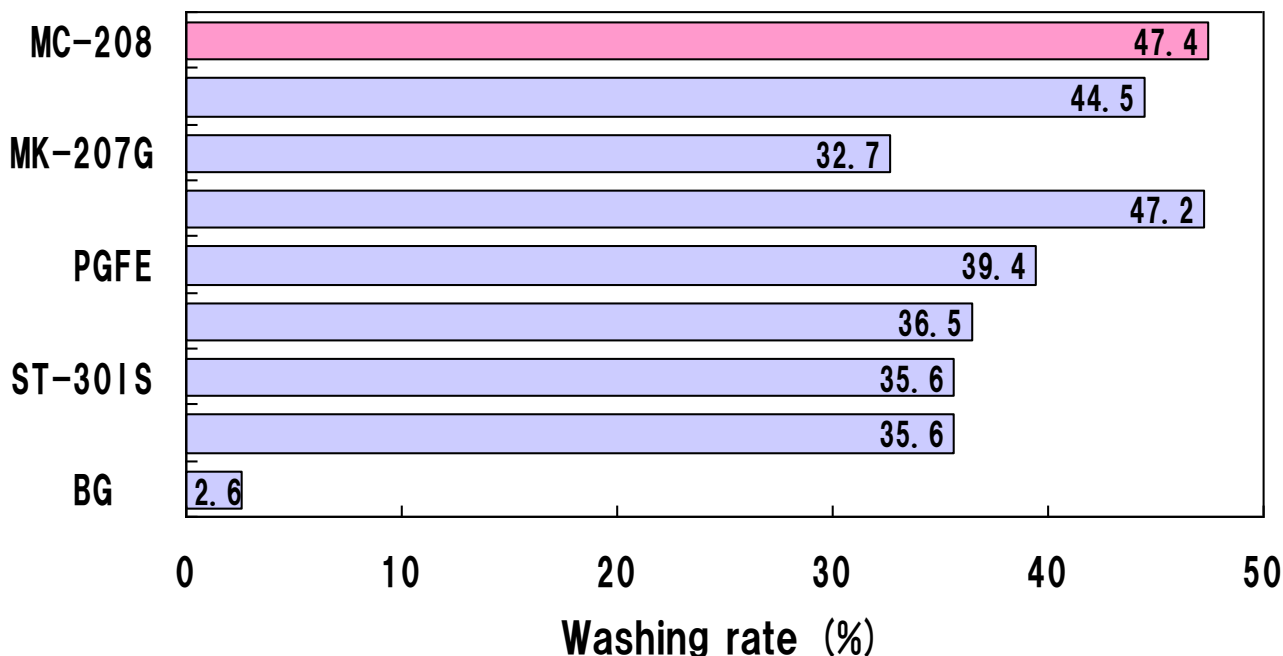
### Method

- ① Spread commercial lipstick 5mg (1cm diameter) on artificial leather.
- ② Prepare 5% water-solution of each nonionic surfactant.
- ③ Put prepared solution 60mg on lipstick, then spread circular and washing off.
- ④ Measure red light strength and calculate washing rate by the following equation.

$$\text{Washing rate (\%)} = (1 - a/a_0) \times 100$$

\*  $a_0$ : Red light strength before washing off,  
 $a$ : Red light strength after washing off

### Results



| Samples    | INCI                             | HLB |
|------------|----------------------------------|-----|
| MC-208     | PEG-8 CAPRYLIC/CAPRYL GLYCERIDES | 15  |
| Competitor | PEG-6 CAPRYLIC/CAPRYL GLYCERIDES | 15  |
| MK-207G    | PEG-7 GLYCERYL COCOATE           | 13  |
| GM-20IS    | PEG-20 GLYCERYL ISOSTEARATE 15   |     |
| PGFE       | POLYGLYCERYL-10 LAURATE          | 15  |
| ST-30E     | SORBETH-30 TETRAOLEATE           | 11  |
| ST-30IS    | SORBETH-30 TETRAISOSTEARATE 11   |     |
| Tween80    | POLYSORBATE 80                   | 15  |
| BG         | 1,3-BG                           | —   |

## 6 Applications

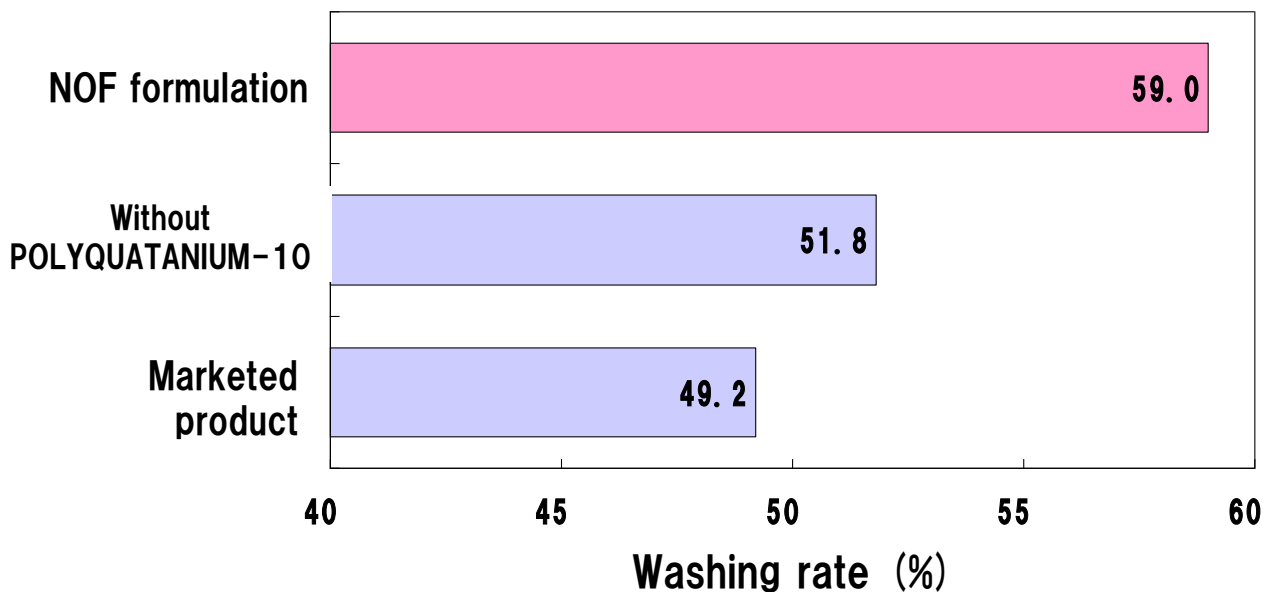
### Cleansing Water

| INCI   | NOF Products    | wt%     |
|--|-----------------|---------|
| PEG-8 CAPRYLIC/CAPRYL GLYCERIDES                       | UNIGLY MC-208   | 3.0     |
| PEG/PPG/POLYBUTYLENEGLYCOL -8/5/3 GLYCERIN, TOCOPHEROL | WILBRIDE S-753D | 2.0     |
| BG   | —               | 5.0     |
| PEG-20 GLYCERYL ISOSTEARATE                            | UNIOX™ GM-20IS  | 0.5     |
| POLYQUATANIUM-10                                       | —               | 0.1     |
| pH adjuster, preservative                              | —               | q.s.    |
| WATER  | —               | Balance |

**PROCEDURE** : Mix and dissolve all ingredients at room temperature.

※The safety and intellectual property right are not guaranteed.

### Cleansing test



※ Same method as previous page.