PCC

# EXOcare HTW1

## Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua

Local. Global. Integrated.

## Description

- stabilization of oil-in-water emulsions
- biodegradable
- good tolerated by skin and mucous membranes
- ability to solubilize essential oils, fragrances and other oil substances

## Application

- shampoos
- baby bath gels
- gentle baby shampoos
- liquid soap
- haircare
- shaving foams
- shower gels
- face gels
- hair coloring and bleaching
- make-up and make-up removal

in line with cosmetic trends

guarantee the consumer satisfaction

improvement of Personal Care formulations

innovative product

value for money

# EXOcare HTW1

## Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua

| | | |
|---|---|---|
| Chemical name | Alcohols, C13, branched, ethoxylated and castor oil, hydrogenated, Ethoxylated, water solution | |
| INCI name | Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua | |
| Function | Blend of non-ionic surfactants. The product is used primarily as a solubiliser | |
| Technical requirements | Appearance at temperature (20÷25)°C | liquid |
| | Colour in Hazen scale 40°C | max 150 |
| | pH of 5% solution | 5 ÷ 7 |
| | Water, %(m/m) | 8 ÷ 10 |
| General data | Solubility in water | good |
| | Solidification point, °C | approx. -4 |
| | Density at 25°C, g/mL | approx. 1.04 |
| | Viscosity at 25°C, cP | below 1000 |

# Cleaning micellar lotion

| Phase | INCI name | Brand name | Concentration [%] | Function |
|---|---|---|---|---|
| A | Aqua | – | 84.96 | solvent |
| A | Sodium Benzoate | – | 0.25 | preservative |
| A | Potassium Sorbate | – | 0.25 | active |
| **B** | **Poloxamer 184** | **EXOmer L64** | **3.00** | **surfactant** |
| **B** | **Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua** | **EXOcare HTW1** | **4.00** | **solubiliser** |
| B | Glycerin | – | 1.00 | moisturizer |
| B | Propylene Glycol | – | 6.00 | solvent |
| B | Parfum | – | 0.50 | fragrance |
| B | Citric acid | – | 0.04 | pH adjuster |

| | | |
|---|---|---|
| **Appearance** | visual method | transparent liquid |
| **pH** | | 4.8-5.5 |
| **Stability** | 1 month in 5°C, 20°C, 40°C | confirmed |

## Procedure:

**1.** Aqua heat to 40 – 50˚C. In main beaker mix aqua with Sodium Benzoate and Potassium Sorbate (phase A).
**2.** Add ingredients from phase B to the main beaker and mix.
**3.** Check pH, if necessary add more Citric Acid to 4.8-5.5.

# Cleaning facial foam wash

| Phase | INCI name | Brand name | Concentration [%] | Function |
|---|---|---|---|---|
| A | Aqua | – | 92.29 | solvent |
| A | Betaine | – | 0.25 | active substance |
| B | Glycerin | – | 1.00 | moisturizer |
| **C** | **Sodium Lauroyl Sarcosinate** | **ROKAtend LS** | **4.00** | **surfactant** |
| **D** | **Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua** | **EXOcare HTW1** | **2.00** | **solubiliser** |
| D | Methylparaben, Ethylparaben | – | 0.40 | preservative |
| E | Citric acid | – | 0.06 | pH adjuster |

| | | |
|---|---|---|
| **Appearance** | visual method | transparent liquid |
| **pH** | | 5.5-6.5 |
| **Stability** | 1 month in 5°C, 20°C, 40°C | confirmed |

## Procedure:

**1.** Aqua heat to 40 – 50˚C. In main beaker mix warm Aqua with Betaine (phase A).
**2.** Phase B add to phase A and mix.
**3.** Next add ROKAtend LS (phase C) and mix until clear solution is obtained.
**4.** In other baker mix phase D.
**5.** To the main baker add phase D and phase E.
**6.** Check pH, if necessary add more Citric Acid to 5.5-6.5.

# Men body foam with cooling effect

| Phase | INCI name | Brand name | Concentration [%] | Function |
|---|---|---|---|---|
| A | Aqua | – | 78.15 | solvent |
| A | Sodium Benzoate, Potassium Sorbate, Aqua | – | 0.50 | preservative |
| **B** | **Ammonium Lauryl Sulfate** | **ROSULfan A70** | **5.00** | **surfactant** |
| B | Glycerin | – | 1.50 | moisturizer |
| B | Caprylyl/ Decyl Glucoside | – | 4.00 | surfactant |
| **B** | **Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua** | **EXOcare HTW1** | **0.50** | **solubiliser** |
| C | Menthyl Lactate | – | 1.00 | refreshing |
| C | Propylene Glycol | – | 4.00 | solvent |
| **D** | **Cocamidopropyl Betaine** | **ROKAmina K30** | **5.00** | **surfactant** |
| D | Parfum | – | 0.25 | fragrance |
| D | CI 42090 | – | 0.10 | dye |
| D | Lactic Acid | – | for pH 4.7-5.5 | pH adjuster |

| | | |
|---|---|---|
| **Appearance** | visual method | blue liquid |
| **pH** | | 4.7-5.0 |
| **Stability** | 1 month in 5°C, 20°C, 40°C | confirmed |

## Procedure:

**1.** In main vessel combine ingredients from phase A - mix until uniform.
**2.** Next add ROSUlfan A70 and mix.
**3.** Add Glycerin and Caprylyl/Decyl Glucoside, mix.
**4.** In next step add EXOcare HTW1 and mix.
**5.** In separate vessel mix Menthyl Lactate with Propylene Glycol (phase C) until uniform. Next add it to main vessel and mix.
**6.** Add ROKAmina K30 and mix until uniform.
**7.** Add Parfum and Pigment, mix.
**8.** Control the pH range – if necessary, add Lactic Acid for pH 4.7-5.5.

# Make-up removing liquid

| Phase | INCI name | Brand name | Concentration [%] | Function |
|---|---|---|---|---|
| A | Aqua | – | 92.19 | solvent |
| A | Betaine | – | 0.25 | active substance |
| **B** | **Poloxamer 184** | **EXOmer L64** | **0.20** | **surfactant** |
| **B** | **PEG-6 Caprylic/Capric Glycerides** | **ROKAcet CC6** | **4.00** | **surfactant** |
| B | Glycerin | – | 1.00 | moisturizer |
| **C** | **Trideceth-9 (and) PEG-40 Hydrogenated Castor Oil (and) Aqua** | **EXOcare HTW1** | **1.00** | **solubiliser** |
| C | Parfum | – | 0.30 | fragrance |
| C | Phenoxyethanol, Ethylhexylglycerin | – | 1.00 | preservative |
| D | Citric acid | – | 0.06 | pH adjuster |

| | | |
|---|---|---|
| **Appearance** | visual method | transparent liquid |
| **pH** | | 5.5-6.5 |
| **Stability** | 1 month in 5°C, 20°C, 40°C | confirmed |

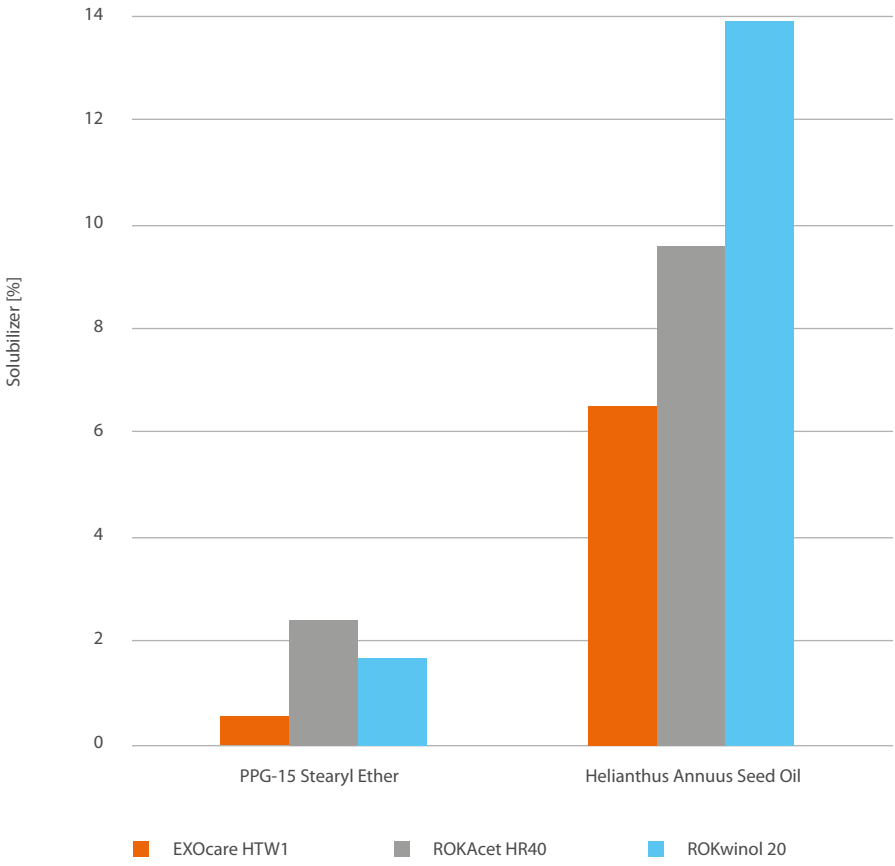
## Procedure:

**1.** In main beaker mix Aqua with Betaine (phase A).
**2.** Phase B add to phase A and mix.
**3.** In other baker mix phase C.
**4.** To the main baker add phase C and add Citric Acid.
**5.** Check pH, if necessary add more Citric Acid to 5.5-6.5.

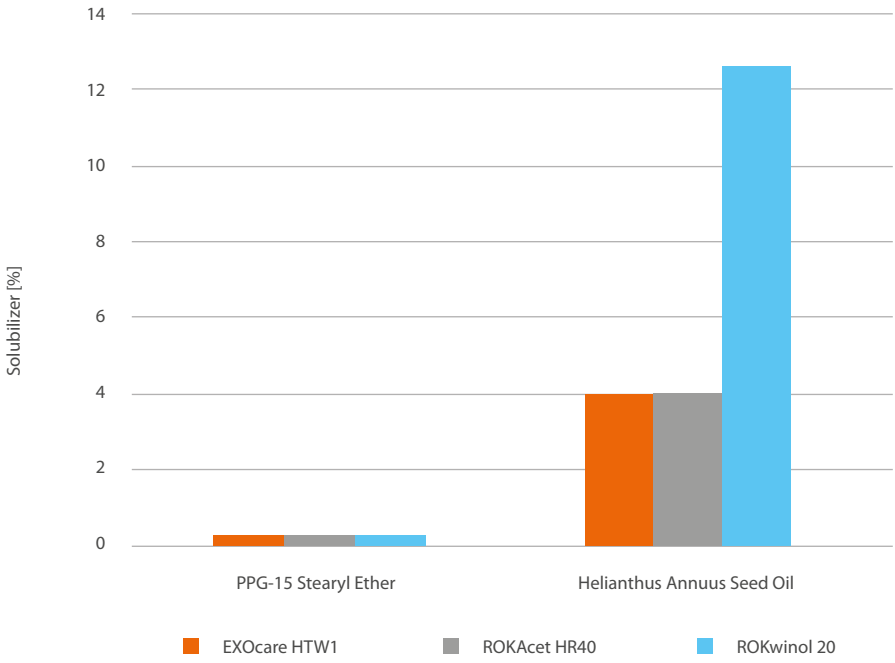
# Solubilization test

Solubilizers make it possible to dissolve insoluble or hardly soluble substances, such as fragrances, essential oils, fatty substances, in an aqueous medium. These substances are mainly used in products in which the main ingredient is water or when there is a low alcohol content in the solution. Solubilizers form a dispersion, so that finished products do not require mixing or shaking before use. They are mainly used in formulations such as makeup removers, tonics, gels, body and hair care products.

Solubilization test determining the amount of solubilizer needed to introduce 0.5% of water-insoluble components to obtain a clear mixture.
Input system: Insoluble substance – Solubilizer – Water



Solubilization test determining the amount of solubilizer needed to introduce 1% of water-insoluble component into formulation and obtain a clear mixture.
Input system: Insoluble substance – Solubilizer – Water-Surfactants

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