



IOI OLEOCHEMICAL

PERSONAL CARE

# TECHNICAL DATA SHEET

## SOFTISAN® 645

INCI: Bis-Diglyceryl Polyacyladipate-1



- HIGH WATER ABSORPTION CAPACITY
- CONDITIONING & FILM FORMING
- EXCELLENT SKIN COMPATIBILITY



## DESCRIPTION

**SOFTISAN® 645** is a multifunctional film-forming agent and emollient with high water-binding capacity and excellent adhesion to the skin, where it will form a strong film. Its physical properties make it an ideal substitute for lanolin oil. It is vegan, halal, available in RSPO MB certified quality and produced exclusively in Germany.

It is a partial ester of natural diglycerin with medium chain fatty acids, isostearic acid, 12-hydroxystearic acid and adipic acid. SOFTISAN® 645 is a yellowish, high-viscosity fluid with a typical fatty odor. It does not contain any additives. Due to the selected raw materials, it is free of any pesticides or other impurities. SOFTISAN® 645 is stable against air oxidation and does not taste rancid. Due to its strong water-binding capacity, SOFTISAN® 645 can draw water during storage. This may lead to turbidity. However, this has no influence on the quality or performance of the product.

## APPLICATION

**SOFTISAN® 645** can be used in W/O and O/W formulations as well as in color cosmetics. The product is especially recommend for all formulations, in which film forming and conditioning properties are of a great interest.

|                                                  |                                                |                                              |                                                      |
|--------------------------------------------------|------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Skin Care    | <input checked="" type="checkbox"/> Body Care  | <input checked="" type="checkbox"/> Sun Care | <input checked="" type="checkbox"/> Color Cosmetics  |
| <input checked="" type="checkbox"/> Baby Care    | <input checked="" type="checkbox"/> Hair Care  | <input type="checkbox"/> Bath Care           | <input checked="" type="checkbox"/> Wet Wipes        |
| <input checked="" type="checkbox"/> Self-Tanning | <input checked="" type="checkbox"/> Beard Care | <input type="checkbox"/> Deodorants          | <input checked="" type="checkbox"/> Intimate Hygiene |

**SOFTISAN® 645** is miscible with all fats, oils and paraffin.

## FORMULATION HINTS

- Recommended concentration of **SOFTISAN® 645**: 1 – 30%
- Applicable for cold and hot processes
- Add SOFTISAN® 645 to the oil phase
- It forms an emulsion when stirred with warm water
- Recommended pH level: pH 4.5 – 7.0



# FORMULATION GUIDE

## LIQUID LIP GLOSS NO. 548

After having worn matt and overpainted lips in the last years, the trend is now back to naturally shiny lips. Our combination of SOFTISAN® 645 and SOFTIGEN®PURA is the perfect way to keep them shiny all day long. Together they provide a long-lasting base that still does not stick.

|                | Trade Name                 | INCI                                                                           | %           |
|----------------|----------------------------|--------------------------------------------------------------------------------|-------------|
| <b>PHASE A</b> | <b>SOFTISAN® 100</b>       | <b>Hydrogenated Coco-Glycerides</b>                                            | <b>4.0</b>  |
|                | <b>IMWITOR® 600</b>        | <b>Polyglyceryl-3 Polyricinoleate</b>                                          | <b>1.0</b>  |
|                | <b>SOFTISAN® 645</b>       | <b>Bis-Diglyceryl Polyacyladipate-1</b>                                        | <b>10.0</b> |
|                | <b>SOFTIGEN®PURA</b>       | <b>Olus Oil (EU)/ Vegetable Oil (US)</b>                                       | <b>30.0</b> |
|                | Castor Oil                 | Castor Oil                                                                     | 28.0        |
|                | Rewopal PIB 1000           | Polyisobutene                                                                  | 10.0        |
|                | Isofol® 20                 | Octyldodecanol                                                                 | 10.0        |
|                | Beeswax                    | Cera Alba                                                                      | 1.0         |
|                | Aerosil 200                | Silica                                                                         | 2.0         |
| <b>PHASE B</b> | Timiron® Starluster MP-115 | MICA, CI 77891 (Titan Dioxide)                                                 | 3.0         |
|                | Intenza Passionate Kiss    | Synthetic Fluorophlogopite (and) Titanium Dioxide (and) D&C Red 7 Calcium Lake | 1.0         |
|                |                            |                                                                                |             |

### PREPARATION:

1. Mix and heat phase A to 80°C.
2. Add phase B under stirring and fill into packaging.

### SUPPLIERS:

**IOI Oleo GmbH: IMWITOR®, SOFTIGEN®, SOFTISAN®**

Evonik: Rewopal, Aerosil

Sasol: Isofol®

Merck: Timiron®

SunChemicals: Intenza



**MESSAGE OIL NO. 550**

A gentle massage after a hard day makes life much easier. With a great massage oil, which makes the skin soft to the touch and provides lasting care, the evening massage becomes a soothing ritual that you will not want to miss soon. The combination of SOFTISAN® 645 and WITARIX® MCT 60/40 provides a pleasant feeling both during and after the massage, with an extra long-lasting effect.

|                | Trade Name                | INCI                                             | %           |
|----------------|---------------------------|--------------------------------------------------|-------------|
| <b>PHASE A</b> | <b>IMWITOR® 375</b>       | <b>Glyceryl Citrate/Lactate/Linoleate/Oleate</b> | <b>10.0</b> |
|                | <b>WITARIX® MCT 60/40</b> | <b>Caprylic/Capric Triglyceride</b>              | <b>30.0</b> |
|                | <b>SOFTISAN® 645</b>      | <b>Bis-Diglyceryl Polyacyladipate-1</b>          | <b>5.0</b>  |
|                | Soybean Oil               | Glycine Soybean Oil                              | 20.0        |
|                | Sunflower Oil             | Helianthus Annuus (Sunflower) Seed Oil           | 19.5        |
|                | Sweet Almond Oil          | Prunus Amygdalus Dulcis (Almond) Oil             | 10.0        |
|                | Aloe Vera, oil soluble    | Aloe Barbadensis                                 | 5.0         |
|                | Tocopherol                | Tocopherol                                       | 0.5         |

**PREPARATION:**

*Prepare this formulation at room temperature.*

- Mix all ingredients in the given order until clear.

**SUPPLIER:**

**IOI Oleo GmbH: IMWITOR®, SOFTISAN®, WITARIX®**

## HANDLING AND SHELF LIFE

The shelf life for SOFTISAN® 645 is at least twenty-four months if the product is stored below 25°C in a dry place in original, tightly closed containers, protected from light and moisture.

## PACKAGING UNITS

Multitainer with 25 kg, 600 kg on CP3 pallet  
Drum with 190 kg, 760 kg on CP3 pallet

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