



IOI OLEOCHEMICAL

PERSONAL CARE

# TECHNICAL DATA SHEET

## SOFTISAN<sup>®</sup> 649

INCI: Bis-Diglyceryl Polyacyladipate-2



2-0002-04-100-02



100% VEGAN



CHINA  
COMPLIANT



Cruelty Free  
INTERNATIONAL

### THE VEGAN, ALL-PURPOSE FILM-PROTECTOR

The water-resistant/water-binding vegan film former for safe formulas offering caring smooth sensoriality, and providing barrier protecting effect



## DESCRIPTION

**SOFTISAN® 649** is a vegan, pure multifunctional ester in pasty form, offered only in RSPO MB certified quality and produced exclusively in Germany.

Due to its pasty consistency SOFTISAN® 649 is able to adjust the viscosity and spreading properties of an oil phase. It underlines the caring properties of your emulsion by enhancing the skin softness and providing a caring smooth skin feel that supports your signature touch. SOFTISAN® 649 has a unique relationship with water. Its complex and unique chemical 3D-structure traps water inside. This makes it both water-resistant and water binding (up to 200%), resulting in a strong and highly substantive protecting film that can reduce skin water loss (TEWL). This all-purpose ingredient is used for high performance products like moisturizing & skin barrier protecting formulas, long-lasting color care, effective hair care or water-resistant sun or baby care.

SOFTISAN® 649 is based on 85% renewable sources and has a natural origin index (NOI) of 0.85 according to ISO 16128. Proven skin compatibility, its vegan nature, biodegradability and safe toxicological profile round off the great assets of this chemically inert product.

It is a partial ester of natural diglycerin with medium chain fatty acids, isostearic acid, stearic acid, 12-hydroxystearic acid and adipic acid. SOFTISAN® 649 is a slight yellowish viscous paste with characteristic odor and neutral, non-rancid taste. It is stable against air oxidation and does not change its appearance during storage. It is free from any additives, pesticides or impurities.

## APPLICATION

**SOFTISAN® 649** is the perfect fit for all formulas and is especially suitable for baby care, sun care and color cosmetics. The neutral taste combined with glossiness and film-forming properties make SOFTISAN® 649 a staple product for lip care and color cosmetics.

<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 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® 649** is miscible with all fats, oils and paraffin.

## FORMULATION HINTS

- Recommended dosage of **SOFTISAN® 649**: 0.5 – 30%
  - Skin care: 1 – 5% for smooth, moisturized skin and decreased TEWL readings
  - Hair care: 2 – 4%, clear formulas possible
  - Sun care: 2 – 5% for enhanced water resistance, clear formulas possible
- Can also be used as 1:1 vegan replacement of lanolin
- Applicable for hot and cold processes
  - Melting up to 80°C (bulk container) does not change the performance
- Add SOFTISAN® 649 to the oil phase or to the surfactant phase in rinse-off formulas
- Recommended pH level: pH 4.0 – 7.0
- No anti-oxidant needed



# FORMULATION GUIDE

## SOFT & SILKY W/O CREAM #740

Who says that W/O creams are always oily and take ages to get absorbed?

This silky W/O cream protects the skin from moisture loss during cold winter times for a strengthened skin barrier. Unlike other W/O emulsions, it also has a pleasant soft and silky touch without being oily.

SOFTISAN® 649 moisturized and contributes to the skin barrier effect by lowering the TEWL and provides, in combination with MIGLYOL® T-C7 and SOFTISAN® 378 a caring smooth sensoriality.

	Trade Name	INCI	%
<b>PHASE A</b>	<b>IMWITOR® 600</b>	<b>Polyglyceryl-3 Polyricinoleate</b>	<b>4.5</b>
	<b>MIGLYOL® T-C7</b>	<b>Triheptanoin</b>	<b>5.0</b>
	<b>WITARIX® MCT 60/40</b>	<b>Caprylic/Capric Triglyceride</b>	<b>8.0</b>
	<b>SOFTISAN® 378</b>	<b>Caprylic/Capric/Myristic/Stearic Triglyceride</b>	<b>3.0</b>
	Argan Oil	Argania Spinosa Kernel Oil	2.5
	Baobab Oil	Adansonia Digitata Seed Oil	2.6
	Sweet Almond Oil	Prunus Amygdalus Dulcis Oil	5.0
	Beeswax	Cera Alba	2.0
	Tocopherol	Tocopherol	0.5
	<b>SOFTISAN® 649</b>	<b>Bis-Diglyceryl Polyacyladipate-2</b>	<b>2.0</b>
<b>PHASE B</b>	Water demin.	Aqua	63.3
	<b>SOFTISAN® GC8</b>	<b>Glyceryl Caprylate</b>	<b>0.4</b>
	Zinc Sulfate Heptahydrate	Zinc Sulfate	1.2

### PREPARATION:

1. Heat (60°C) and stir SOFTISAN® 378 prior use.
2. Heat phase A and B to 75°C.
3. Add phase B to phase A in small amounts while homogenize at low/medium speed.
4. Cool phase A/B with stirring to approx. 25°C.

### SUPPLIERS:

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



**MARBLE KISS LIPSTICK #844**

This masterpiece is more than its glossy and marbled surface. Marble Kiss combines red color with white creamy color for an arty look with additional benefits. Thanks to long-lasting & moisture loss reducing (SOFTISAN® 649) and shine (SOFTISAN® PG2 C10) agents, the red reveals a radiant color that lingers on the lips. The white creamy phase combines unlimited hydration (SOFTISAN® conditionHAIR) with repairing oils (WITARIX® MCT C8 and MIGLYOL® OE). Each application on the lips is unique, as is the hydration and care mix, and the fusion of the two colors into one showcases the unique personality of the wearer.

	Trade Name	INCI	%	%
<b>PHASE A</b>	<b>WITARIX® MCT C8</b>	<b>Tricaprylin</b>	<b>27.0</b>	<b>23.6</b>
	<b>MIGLYOL® OE</b>	<b>Oleyl Erucate</b>	<b>12.5</b>	<b>16.5</b>
	Castor Oil	Ricinus Communis Seed Oil	25.1	29.5
	<b>SOFTISAN® conditionHAIR</b>	<b>PCA Glyceryl Oleate</b>	<b>5.0</b>	-
	<b>SOFTIGEN® 701 ECO</b>	<b>Glyceryl Ricinoleate (and) Tocopherol</b>	<b>2.0</b>	-
	<b>SOFTISAN® PG2 C10</b>	<b>Polyglyceryl-2 Caprate</b>	-	<b>2.0</b>
	6642 Carnauba Wax	Copernicia Cerifera Cera	8.0	7.5
	2039 L Candelilla Wax	Euphorbia Cerifera Cera	8.0	8.0
	Tocopherol	Tocopherol	1.0	0.5
	Ecoperse White W 47051	CI 77891 (and) Octyldodecyl Oleate	8.0	-
	<b>SOFTISAN® 649</b>	<b>Bis-Diglyceryl Polyacyladipate-2</b>	-	<b>2.0</b>
	SWD 4512 D&C Red 6 Ba Lake	Synthetic Wax (and) CI 15850	-	10.0
<b>SOFTISAN® 378</b>	<b>Caprylic/Capric/Myristic/Stearic Triglyceride</b>	<b>3.0</b>	-	
<b>PHASE B</b>	Raspberry Lips 6800026	Parfum (EU)/ Fragrance (US)	0.4	0.4

**PREPARATION:**

1. Heat (60°C) and stir SOFTISAN® 378 prior use.
2. Mix all components of Caring Cream Stick (white) phase A and Color Stick (red) phase A and heat to 75-80°C.
3. Add parfum to both lipstick masses.
4. Pour both lipstick masses into the mold at the same time to create the marble swirl. Make sure that about the same amount runs out.
5. Let allow to cool down (30 min @ refrigerator), then remove the sticks from the molds.

**SUPPLIERS:**

**IOI Oleo GmbH: MIGLYOL®, SOFTIGEN®, SOFTISAN®, WITARIX®**  
 KahlWax: Carnauba Wax, Candelilla Wax  
 Sandream Impact: Ecoperse  
 SunChemical: D&C Red  
 Bell: Parfum



## HANDLING AND SHELF LIFE

The shelf life for SOFTISAN® 649 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

Hobbock with 25 kg, 600 kg on CP3 pallet  
Drum with 180 kg, 720 kg on CP3 pallet

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