



IOI OLEOCHEMICAL

PERSONAL CARE

TECHNICAL DATA SHEET

IMWITOR® 491 IMWITOR® 900 K

INCI: Glyceryl Stearate



- **NON-IONIC CO-EMULSIFIERS**
- **ELEVATED STABILITY & VISCOSITY**
- **100% NATURAL & VEGAN**



DESCRIPTION

IMWITOR® 491 and **IMWITOR® 900 K** are non-ionic co-emulsifiers for O/W emulsions with an estimated HLB of 4. They are 100% natural, vegan, halal, kosher, available in RSPO MB certified quality (IMWITOR® 900K) or palm free (IMWITOR® 491) and produced exclusively in Germany.

IMWITOR® glyceryl stearates are esters of the natural stearic and palmitic acid esterified with glycerol. Both types are white to light yellowish, solid waxy masses/powders, nearly neutral in odor and taste. No additives, residues of antioxidants, stabilizers, solvents or unsaturated components are contained.

Test	IMWITOR® 491	IMWITOR® 900 K	Unit
Melting point	66 – 77 ⁽¹⁾	54 – 66 ⁽²⁾	°C
Monoglycerides	min. 90.0 (USP)	40.0 – 55.0 (type II, Ph.Eur. and USP)	%

⁽¹⁾ Differential scanning calorimetry (DSC) ⁽²⁾ Ascending melting point

APPLICATION

Due to their surface-active properties, **IMWITOR® glyceryl stearates** can function as co-emulsifiers, solubilizing and binding agents, dispersing adjuvants, softeners, consistency regulators and viscosity adjusters of O/W emulsions. They are widely used and can be found in lotions, creams, powders, skin cleansing products, foundations, mascara, eye shadow, eyeliner, hair conditioners and sun care products.

Thanks to their good skin compatibility (classified as GRAS (21 CFR § 184.1324 and 172.863) by the FDA) there are no limits to their use:

- | | | | |
|--|--|--|--|
| <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 checked="" type="checkbox"/> Bath Care | <input checked="" type="checkbox"/> Wet Wipes |
| <input checked="" type="checkbox"/> Self-Tanning | <input checked="" type="checkbox"/> Beard Care | <input checked="" type="checkbox"/> Deodorants | <input checked="" type="checkbox"/> Intimate Hygiene |

Both **IMWITOR® types** are soluble in oils during heating and insoluble in water.

FORMULATION HINTS

- Recommended concentration: 1 – 5% **IMWITOR® 491** or **IMWITOR® 900 K** as a co-emulsifier.
- Without an auxiliary emulsifier, IMWITOR® 491 or IMWITOR® 900 K are considered as non-emulsifying. IMWITOR® 372 P (Glyceryl Stearate Citrate) or IMWITOR® 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate) are suitable main emulsifiers.
- Applicable for hot/cold and hot/hot processes
- Add IMWITOR® glyceryl stearates to the oil phase, heating is obligatory.
- Recommended pH level: pH 4.0 – 7.0



FORMULATION GUIDE

REFRESHING LEG LOTION NO. 840

Parents are on their feet the whole day. Taking care of the kids, rushing to work and balancing their relationships. Sometimes legs can feel a little tired and sleepy. Apply the Refreshing Leg Lotion for instantly energized legs! The super-light texture gets fast absorbed and leaves a smooth and silky skin feel. The combination of different sensory emollients leads to an instant but lasting smooth skin feel - MIGLYOL® Coco 810, silky, fast-spreading, MIGLYOL® 829 ECO rich, slow-spreading and SOFTISAN® 378, melts on the skin, semi-solid fast-absorbing emollient. SOFTISAN® conditionHAIR instantly moisturizes your legs and improves the skin barrier. Refresh and care on the go!

	Trade Name	INCI	%
PHASE A	IMWITOR® 375	Glyceryl Citrate/Lactate/Linoleate/Oleate	2.0
	IMWITOR® 900 K	Glyceryl Stearate	1.0
	Nafol® 1618 H	Cetearyl Alcohol	2.0
	MIGLYOL® Coco 810	Coco-Caprylate/Caprates	5.0
	MIGLYOL® T-C7	Triheptanoin	2.0
	MIGLYOL® DO	Decyl Oleate	5.0
	SOFTISAN® 378	Caprylic/Capric/Myristic/Stearic Triglyceride	2.0
	MIGLYOL® 829 ECO	Caprylic/Capric/Succinic Triglyceride	3.0
	Cosphaderm® X soft	Xanthan Gum	0.6
	Frescolat® X-Cool	Menthyl Ethylamido Oxalate	1.0
PHASE B	Water demin.	Aqua	68.6
	Cosphaderm® POP	Propanediol (and) Caprylyl Glycol (and) Phenylpropanol	1.2
	Zemea® Propanediol	Propanediol	5.0
PHASE C	Unicert Green K7015-J, 1% Aqueous Solution	Aqua (and) CI 61570	0.6
	Unicert Yellow 08005-J, 1% Aqueous Solution	Aqua (and) CI 19140	0.2
	Oceania 49384079	Parfum (EU)/ Fragrance (US)	0.3

PREPARATION:

1. Heat phases A and B and heat them separately to approx. 75 - 80°C.
2. Add phase B to phase A and homogenize (3 min @ 12.000 rpm).
3. Allow to cool (35 - 40°C) while stirring.
4. Add phase C while stirring.
5. Adjust the pH to pH 5.8 - 6.0 if necessary.

SUPPLIERS:

IOI Oleo: IMWITOR®, MIGLYOL®, SOFTISAN®
 Sasol: Nafol®
 Cosphatec: Cosphaderm®
 Symrise: Frescolat®
 DuPont Tate & Lyle: Zemea®
 Sensient: Unicert
 drom: Parfum



SMOOTHING FOOT BALM NO. 846

Your feet want some love - show them your appreciation for carrying you every day and everywhere you want to go with this Smoothing Foot Balm. The rich texture smoothes and cares for your feet, not only during the day but especially overnight. We recommend applying a thick layer of this balm, putting on socks and awake with super soft and loved happy feet! IMWITOR® 372 P and IMWITOR® 900 K lead to the creamy texture, whereas SOFTISAN® conditionHAIR moisturizes your feet and improves their skin barrier. The sensory emollients MIGLYOL® Coco 810, WITARIX® MCT C8 and SOFTISAN® 378 provide an instant yet lasting smooth skin feel and care for your stressed feet.

	Trade Name	INCI	%
PHASE A	IMWITOR® 372 P	Glyceryl Stearate Citrate	4.0
	IMWITOR® 900 K	Glyceryl Stearate	2.0
	Nafol® 1618 H	Cetearyl Alcohol	2.0
	Nafol 22-98	Behenyl Alcohol	1.0
	MIGLYOL® Coco 810	Coco-Caprylate/Caprates	5.0
	WITARIX® MCT C8	Tricaprylin	11.0
	SOFTISAN® 378	Caprylic/Capric/Myristic/Stearic Triglyceride	7.0
	SOFTISAN® conditionHAIR	PCA Glyceryl Oleate	1.0
	Tocopherol	Tocopherol	0.5
	Sucrathix® VX	Microcrystalline Cellulose (and) Cellulose Gum (and) Xanthan Gum	1.0
	Frescolat® X-Cool	Menthyl Ethylamido Oxalate	1.0
PHASE B	Water demin.	Aqua	59.1
	Cosphaderm® POP	Propanediol (and) Caprylyl Glycol (and) Phenylpropanol	1.2
	Glycerin	Glycerin	3.0
PHASE C	Oceania 49384079	Parfum (EU)/ Fragrance (US)	0.4
	Unicert Green K7015-J, 1% Aqueous Solution	Aqua (and) CI 61570	0.6
	Unicert Yellow 08005-J, 1% Aqueous Solution	Aqua (and) CI 19140	0.2

PREPARATION:

1. Weigh both phases A and B and heat them separately to approx. 75°C.
2. Add phase B to phase A and homogenize (3 min @ 12.000 rpm).
3. Allow to cool (35 - 40°C) while stirring.
4. Add phase C while stirring.
5. Adjust the pH to pH 5.5 - 6.0 if necessary

SUPPLIERS:

IOI Oleo: IMWITOR®, MIGLYOL®, SOFTISAN®, WITARIX®
 Sasol: Nafol®, Nacol
 Alchemy Ingredients: Sucrathix®
 Symrise: Frescolat®
 Cosphatec: Cosphaderm®
 drom: Parfum
 Sensient: Unicert



HANDLING AND SHELF LIFE

The shelf life for IMWITOR® 491 and IMWITOR® 900 K 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

Paper bag with 25 kg; 450 kg on CP2 or DB pallet (IMWITOR® 491: 875 kg per pallet)

IOI Oleo GmbH

Hamburg, Germany | +49 40 28 00 31-0
personalcare@ioioleo.de | www.ioioleo.de

Raw material approved by ECOCERT GREENLIFE, compliant with the COSMOS standard

In particular, IOI Oleo GmbH makes no representations or warranties, neither express nor implied, of merchantability, fitness for a particular purpose that the products to which the information refers may be used without infringing the intellectual property rights of others, or of any other nature hereunder with respect to the information or the products to which the information refers. In no case shall the information be considered a part of our Terms and Conditions of Sale.

PERSONAL CARE
V_01

