

## Product specification

**Material** TEGOSOFT AC MB  
**Spec.Code** K00 STANDARD

### Evonik Nutrition & Care GmbH

Business Line Care Solutions  
 Goldschmidtstrasse 100  
 45127 Essen  
 Phone: + 49 (201) 173-2524  
<http://www.evonik.com/personal-care>  
[personal-care@evonik.com](mailto:personal-care@evonik.com)  
<http://www.evonik.com/household-care>  
[info-household-care@evonik.com](mailto:info-household-care@evonik.com)

Inspection Characteristics	Method	Limits	Units	Z
Colour to Hazen	GM_0140_01	< = 100	Hazen	X
Acid Value	GM_0010_01	< = 1.00	mg KOH/g	X
Saponification Value	GM_0030_01	185.0 - 205.0	mg KOH/g	X
Water Content	GM_0080_01	< = 0.2	%	X
Isoamylalcohol	GM_0623_01	< = 0.100	%	X
Refractive index / 20°C	GM_0120_01	1.4370-1.4420		X

Report on inspection certificate: X = specific/actual value, C = unspecific value/conformity, T = not reported

This product contributes to the production of certified sustainable palm oil according to the rules set out by RSPO Supply Chain Mass Balance (MB).

RSPO Certification Number: RSPO-V-14-13553.

This document is computer printed and therefore valid without signature.

All warranty claims in respect of the conformity of our product are subject to our General Terms and Conditions of Sale and Delivery. The data listed above reflects the criteria for our internal quality tests. We do not hereby make any express or implied warranty, whether for specific properties or for fitness for any particular application or purpose. All values are valid for the product when despatched from the works.

The Standard Test Methods can be obtained from specialized publishers. Evonik's test methods are available on request.

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## Technical Information

## TEGOSOFT® AC MB

## Natural-based emollient with light skin feel produced by an eco-efficient process

## Intended use

Liquid lipophilic emollient

## Benefits at a glance

- Fully based on renewable sources
- Produced by the unique sustainable Evonik eco-efficient (enzymatic) process using 100% renewable energy and with improved impact on global warming by 100% lower CO<sub>2</sub> footprint
- Clear, low-viscous emollient that provides quick absorption and a non-oily skin feel when applied on skin
- Helps in formulating natural cosmetic products with a light sensory profile
- Shows excellent wetting properties of hydrophobically coated pigments

## INCI (PCPC Name)

Isoamyl Cocoate

## Chemical and physical properties (not part of specification)

Form	Liquid
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## Further product information (not part of specifications)

Density at 25 °C (g/cm <sup>3</sup> )	~0.85
Viscosity at 25 °C according to Höppler (mPas)	6
Surface tension at 25 °C according to ring method (mN/m)	28
Spreadability	medium
Polarity	medium
Pour point (°C)	-3 °C

## Properties

- TEGOSOFT® AC MB is an emollient ester of isoamyl alcohol and fatty acid of 100% vegetable origin, which are sugar beet, palm and coconut.
- Fully biodegradable and contributes to the production of certified sustainable palm oil according to the rules set out by RSPO Mass Balance Supply Chain Model
- TEGOSOFT® AC MB has an improved impact on global warming by 85% lower CO<sub>2</sub> footprint compared to conventional chemical production & non RSPO certified feedstock as shown by life cycle analysis
- Low-viscous emollient, which can be easily distributed on the skin and shows a quick absorption behaviour without leaving a waxy film on the skin.
- Miscible with all common cosmetic oils and can easily be used in O/W and W/O formulations.

## Pigment wetting

Besides traditional foundations, numerous skin care market products (e.g. BB/CC creams) but also sun care and make-up products (concealer, mascara) contain pigments. The pigment wetting properties of emollients are an important parameter, when it comes to formulating pigment-containing products. This property was evaluated using some of the most commonly used metal oxide pigments with Dimethicone coating. Uncoated Carbon Black was also evaluated. The ratio of the pigments versus the corresponding emollient was optimized for the highest pigment loading. This allowed clear differentiation of the emollient performance.

The viscosity at 1/100 seconds was measured using a Haake Rheo Stress rheometer. Measurements were taken at room temperature, unless noted. The lower the viscosity, the better the pigment wetting. The test results have shown that TEGOSOFT® AC MB displays excellent pigment wetting properties for hydrophobically coated pigments.

No.	Product name	INCI	Overall pigment wetting capability	Score				
				1	2	3	4	5
1	TEGOSOFT® AC MB	Isoamyl Cocoate	*****					
2	demofeel® sensolv MB	Isoamyl Laurate	*****					
3	TEGOSOFT® P	Isopropyl Palmitate	*****					
4	TEGOSOFT® M	Isopropyl Myristate	*****					

■ Yellow iron oxide, CI 77492    ■ Carbon black, CI 77266  
■ Black iron oxide, CI 77499    ■ Titanium dioxide, CI 77891  
■ Red iron oxide, CI 77491

Score values reflect the viscosity of the respective pigment/emollient dispersion. The lower the score value, the better the pigment wetting. Rating of overall pigment wetting capability:  
 ●●●●● superior    ●●●●● very high    ●●●● high  
 ●●● medium    ●● low    ● very low  
 \* Emollient waxes are measured at elevated temperatures above their melting point.

### Formulation hints

Slight hydrolyzation of isoamyl esters can occur at pH-values below 7. This has no effect on the stability of the emollient or formulation and in perfumed formulations this effect is negligible. In unperfumed formulations an odor of isoamyl alcohol could be perceived. This has to be taken into account when e.g. formulating with natural preservatives.

### Applications

- Natural cosmetic products (see formulation hints)
- Sun Care
- Color cosmetics

- Body oils
- Facial and body care emulsions, gels and serums
- Baby Care
- Sprayable emulsions
- Antiperspirants/Deodorants

### Suggested usage concentration

1 – 10% TEGOSOFT® AC MB, up to 30% for make-up

### Storage

Store at max. 25 °C.

### Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicological and ecotoxicological effects

is given in our safety data sheets.

### Guideline Formulations

If you are interested in guideline formulations please visit our homepage <https://personal-care.evonik.com>.

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This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could be used.

**Evonik Operations GmbH**  
 Goldschmidtstraße 100  
 45127 Essen, Germany  
 Phone +49 201 173 2436  
[personal-care@evonik.com](mailto:personal-care@evonik.com)  
[www.evonik.com/personal-care](http://www.evonik.com/personal-care)

# TEGOSOFT® AC MB

## Product Data Record (PDR)

### 1. General Information

#### 1.1 Supplier

Evonik Operations GmbH  
Division Nutrition & Care  
Business Line Care Solutions  
Rellinghauser Straße 1-11  
45128 Essen | Germany  
[personal-care@evonik.com](mailto:personal-care@evonik.com)  
<https://www.evonik.com/personal-care>

#### 1.2 Product Description

TEGOSOFT® AC MB is in full compliance with current Cosmetic Regulation (EC) No 1223/2009.

##### 1.2.1 Raw Material Category/Function

Liquid Lipophilic Emollient

##### 1.2.2 INCI Declaration

Isoamyl Cocoate

##### 1.2.3 Composition

Components (INCI EU/US)	Source	Percentage [%]
Isoamyl Cocoate	Vegetable	100

This composition information serves for information of our customers only. It is neither relevant for the composition listing according to Cosmetic Regulation (EC) No 1223/2009, nor does it reflect the chemical composition according to the different chemical regulations in the world which is disclosed in the table "information on ingredients/hazardous components" in the relevant parts of the respective (Material) Safety Data Sheets.

##### 1.2.4 Additives (Antioxidants, Preservatives)

INCI	CAS No. / REACH Reg. No.	EINECS / EC No.	Content	Function
no additives				

Unless mentioned in our PDR under section 2.2 (By-Products) or 2.3 (CMR), no components which are listed in Annex II of the Cosmetic Regulation (EC) No 1223/2009 and its modifications and updates are added to and are not to be expected in the above mentioned product due to the raw materials used and the production process.

## 2. Production Process

### 2.1 General Information on the Production Process

TEGOSOFT® AC MB is obtained by esterification.

Irradiation: TEGOSOFT® AC MB was not irradiated with  $\gamma$ -rays.

TEGOSOFT® AC MB is produced in the absence of any animal derived material of any type. Based on the information on the manufacturing process and production site no contamination with BSE/ TSE risk materials is to be expected.

Description and Origin of plant based materials:  
 Palm (*Eleais guineensis*), sugar beet (*Beta vulgaris*)

CITES: TEGOSOFT® AC MB is not based on raw materials from species listed in CITES appendices.

GMO Status:

The item contains moieties from sugar beet (including oils and other refined ingredients). During the production no GMOs and derivatives from GMOs are used. All reasonable measures have been taken to avoid cross-contamination with GMOs or derivatives from GMOs.

### 2.2 By-Product/Impurities

Potentially occurring by – products are not added intentionally. Impurities e.g. residual solvents are technically unavoidable.

Description	Expected Values
Residual organic solvents	not applicable
Free amines	not applicable
Nitrosamines	not applicable
Monochloroacetic Acid	not applicable
Dichloroacetic acid	not applicable
Pesticides	meets the valid regulatory requirements for limits on agricultural pesticides
Total heavy metals	max. 20 ppm
As, Cd, Co, Cr, Hg, Ni, Pb, Sb	each < 1 ppm
Latex	not to be expected in the product due to the raw materials used and the production process
VOC	< 3 % according to SR (Swiss Right) 814.018
DEG	not applicable

## 2.3 CMR Substances

According to Cosmetic Regulation (EC) No 1223/2009 the use of substances classified as CMR (Carcinogenic, Mutagenic or Reprotoxic) substances of category 1A or 1B or 2, under Part 3 of Annex VI to CLP Regulation (EC) No 1272/2008 in cosmetic products shall be prohibited.

Some of the CMR substances mentioned below and listed in Annex VI to CLP Regulation (EC) No 1272/2008 may be used as starting materials or solvents for the production of our cosmetic raw materials and may require reporting under California Proposition 65 or the California Safe Cosmetics Act, SB 484.

The presence of these substances has to be seen as non-intended and it is technically unavoidable in good manufacturing practice. Traces of CMR substances can derive from impurities of the starting materials or the manufacturing process.

CMR Substance	CAS No.	Starting material	Max. concentration/ Remark
Ethylene Oxide	75-21-8	no	
Propylene Oxide	75-56-9	no	
Octamethylcyclotetrasiloxane (D4)	556-67-2	no	
2-Ethylhexanoic Acid	149-57-5	no	
n-Hexane	110-54-3	no	
Methyl Chloride	74-87-3	no	
Dimethyl Sulphate	77-78-1	no	
1,4-Dioxane	123-91-1	no	
Formaldehyde	50-00-0	no	For more information on formaldehyde please refer to our factsheet available via our intoBeauty website. <a href="https://intobeauty.evonik.com/">https://intobeauty.evonik.com/</a>

## 2.4 "Allergens" according to the Regulation (EC) No 1223/2009

The presence of substances, the mentioning of which is required under the column 'Other' in Annex III of Cosmetic Regulation (EC) No 1223/2009, shall be indicated in the list of ingredients in addition to the terms "Perfume" or "Aroma".

None of those substances have been intentionally added to our cosmetic ingredients or are formed during the manufacturing process according to our knowledge of the chemistry.

An analytical proof for the absence of traces of those substances is not performed in our cosmetic ingredients.

## 2.5 Food Ingredients listed in Annex II of Regulation (EU) No 1169/2011

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

## 2.6 Nanomaterial

The product is not a nanomaterial according to the definition given by Cosmetic Regulation (EC) No 1223/2009, the Commission Recommendation 2011/696/EU and the French Decree No. 2012-232. For details, a separate statement is available on request.

## 2.7 Substances of Very High Concern (SVHC)

The candidate list of substances of very high concern is regularly updated and published by ECHA. If applicable, the information on the substance/s from the candidate list, contained in our product in reportable amounts, is included in section 3 of the product related Safety Data Sheet (SDS).

## 2.8 Country of Origin

TEGOSOFT® AC MB is manufactured in: Germany

## 3. Animal Testing

We hereby confirm that we have never conducted any animal tests with our product TEGOSOFT® AC MB nor that we have ordered such tests at third parties or third parties have conducted such tests with our knowledge and acceptance to fulfil the requirements of Cosmetic Regulation (EC) No 1223/2009.

Therefore TEGOSOFT® AC MB is in full compliance with Cosmetic Regulation (EC) No 1223/2009.

## 4. Microbiological Status

Total Viable Count: max. 100 cfu/g

Pathogens\*: absent/g

\* Pathogens are: Enterobacteria, Pseudomonas, Enterococci, Candida albicans, Staphylococci

## 5. Shelf Life / Storage Conditions

720 days after production (unopened original packaging)

## 6. Regulatory Status

6.1 **HS-Code:** 382499

**EU-CN-Code:** 38249992

### 6.2 Regulatory Status (Chemical Regulations)

Europe

Components Chemical Name/INCI	REACH Status*	CAS No.	EINECS / EC No.
Fatty acids, C12-18 (even-numbered), 3-methylbutyl esters/Isoamyl Cocoate	Reg. No. 01-2120103377-63	not assigned	943-007-2

\*) Any REACH registration no. referred to in this document covers the substance manufactured and/or imported into the European Community by Evonik Nutrition and Care GmbH (or by our affiliates or by our EU suppliers). In case that a customer purchases material produced outside the EU which was not imported into the EU before supply and subsequently imports that material into the EU, this is not covered by any of our existing REACH registrations.

Non EU - Countries/ Regions:

Component	Country	Inventory	yes / no	Remark
Isoamyl Cocoate	Australia	AICS	no	
	China	IECSC	no	
	Canada	DSL	no	notified by Evonik Canada for up to 1 t/a (NSN schedule 4), CAS No. 1314763-50-2
	Canada	NDSL	no	
	Taiwan	TCSI	no	

In the following countries the relevant authorities currently do not request pre-market approval for cosmetic raw materials:

Brazil, Japan, South Korea, Philippines, USA

#### 6.2.1 Regulatory Status (Non EU - Cosmetic Regulations)

Other countries:

Component	Country	Inventory	yes / no	Remark
Isoamyl Cocoate	China	CFDA	no	
	Japan	JSQI	no	
	Japan	JCIA	yes	JCIA No. 563550

## 7. Toxicology and Ecotoxicology

Refer to our document: "Summary of Toxicological and Ecotoxicological Data"

## 8. Packaging

720 kg (4 x 180 kg drum)

This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.