



**SIMP GROUP**

Shanghai **SIMP** Biotechnology Co., Ltd.

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**ACTIVE INGREDIENTS**

**UV-Filter**

**SIMPSSN™ OMC**

**No.: PRO-03-SIMP-0302**

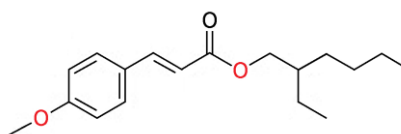


# SIMPSSN™ OMC

(Oil Soluble UV-Filter and Absorber)

## PRODUCT DESCRIPTION

<b>INCI name:</b>	Ethylhexyl Methoxycinnamate (EHMC/OMC)
<b>Chemical names:</b>	2-Ethylhexyl p-Methoxycinnamate (EHMC/OMC)
<b>USAN:</b>	Octinoxate
<b>CAS No.:</b>	5466-77-3
<b>EINECS:</b>	226-775-7
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>26</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	MW = 290.40 / g/mol



## BENEFITS and APPLICATIONS:

**SIMPSSN™ OMC** is a highly effective **UVB** (280 - 320 nm) filter and absorber with a specific extinction (E 1% / 1cm) of min. 830 at 308nm in Methanol and has additional absorption in the short-wave **UVA** spectrum:

- **SIMPSSN™ OMC** is an **UVB** filters and absorber is oil soluble and virtually odorless. It is in liquid state and remains a liquid at temperatures as low as -10°C.
- **SIMPSSN™ OMC** is an excellent solubilizer for crystalline **UV** filters and absorbers. it is suitable for a wide variety of cosmetic applications.
- **SIMPSSN™ OMC** can boost the **SPF** and **PFA** when used in combination with other **UVB** and **UVA** filters.
- **SIMPSSN™ OMC** is ideal for the formulation of water-resistant sunscreen products.
- **SIMPSSN™ OMC** is a safe and effective **UVB** filter and absorber.

**SIMPSSN™ OMC** is the most frequently used **UV** filter in the world. Broad **UV-B** absorbency profile. Water insoluble. It can readily be incorporated without problem in all the usual cosmetic raw materials (fats, oils and other sunscreen actives).

## REGULATIONS (Approval status):

**SIMPSSN™ OMC** is approved world-wide. Concentration maximum varies according to local legislation.

Approval status:	China	EU	USA	Australia	Japan
(W/W)	+ (10%)	+ (10%)	+ (2-7.5%)	+ (10%)	+ (1-20%)
+ = Approved as a sunscreen agent (with max. concentration) .					

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## COMPOSITION:

(I) Ingredient(s)	INCI Name#	Amount*
SIMPSSN™ OMC	Ethylhexyl Methoxycinnamate	A
(II) Additives	INCI Name#	Amount*
Solvents	-	-
Preservative (self-preserving)	-	-
Others (buffers, antioxidants, colorants)	BHT	G

#CTFA Dictionary.

\*FDA - Code (A ≥ 50%, B = 25-50%, C = 10-25%, D = 5-10%, E = 1-5%, F = 0.1-1%, G ≤ 0.1%).

## PROPERTIES and ANALYTICAL DATA\*:

<b>Identity:</b>	IR and UV spectrum	Conforms USP
<b>Appearance:</b>	Colorless to slightly yellowish liquid, almost odorless or weak characteristic odor. (RT)	
<b>Assay:</b>	≥ 98.0 (InC: ≥ 99.0)	% (GC/HPLC)
<b>Density:</b>	1.005-1.013	g / cm <sup>3</sup> (25°C)
<b>Refractive index:</b>	1.542-1.548	(n <sup>20</sup> <sub>D</sub> )
<b>Acid value:</b>	≤ 1.0	mg KOH/g
<b>Boiling point:</b>	198-200	°C (@ 3hPa)
<b>Flash point:</b>	≥ 150	°C
<b>Spec. absorbance:</b>	≥ 830 (1%, 1 cm, MeOH)	(308 /310 nm)
<b>Moisture content:</b>	≤ 0.5	% (K.Fischer 法)
<b>Log POW:</b>	~ 6.1 (Octanol / water partition coefficient)	

The Quality of the product **SIMPSSN™ OMC** meets the requirements from the **STSC** [ **STSC** = 《Safety and Technical Standards for Cosmetics》 Version 2015, China ] and / or EU, USP and the like.

“**Product Specification or Quality Standards**” — Please see the **COA** (Certificate Of Analysis) and/or **TDS** (Technical Data Sheet) from the product **SIMPSSN™ OMC** of the **SIMP**, and / or **order on agreement** !

# SIMPSSN™ OMC

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## SOLUBILITY:

Solubility of SIMPSSN™ OMC in different oils (solvents) at 20°C

Solvent	Concentration	Solvent	Concentration
Water	< 0.0002 g/l	Propylene Glycol	miscible
Ethanol	miscible	Isostearyl stearate	miscible
Isopropanol	miscible	IPM	miscible
Butanol	miscible	Isopropyl stearate	miscible
Aceton	miscible	Capric Triglyceride	miscible
Olive oil	miscible	C12-15 Alkyl Benzoate	miscible
Peanut oil	miscible	PEG-7 Glyceryl Cocoate	miscible

**Note:** These values are taken out of Technical Data Sheets or Material Safety Data Sheets.

## SOLUBILITY OF SOLID UV FILTERS IN SIMPSSN™ OMC at 20°C:

Solid UV Filters	INCI Name	Approx.
<b>SIMPSSN™ BP-3:</b>	Benzophenone-3 (BP-3)	24%
<b>SIMPSSN™ MBC:</b>	4-Methylbenzylidene camphor (MBC)	24%
<b>SIMPSSN™ BMBM:</b>	Butyl methoxydibenzoylmethane (BMBM)	17%
<b>SIMPSSN™ EHT:</b>	Ethylhexyl Triazone (EHT)	24%
<b>SIMPSSN™ DHHB:</b>	Diethylamino hydroxybenzoyl hexyl Benzoate (DHHB)	41%
<b>SIMPSSN™ BEMT:</b>	Bis-ethylhexyloxyphenol methoxyphenyl triazine (BEMT)	17%

## PACKAGE:

Net: 200 kg / drum with PE-liner or *order on agreement !*

## SHELF LIFE and STORAGE CONDITIONS:

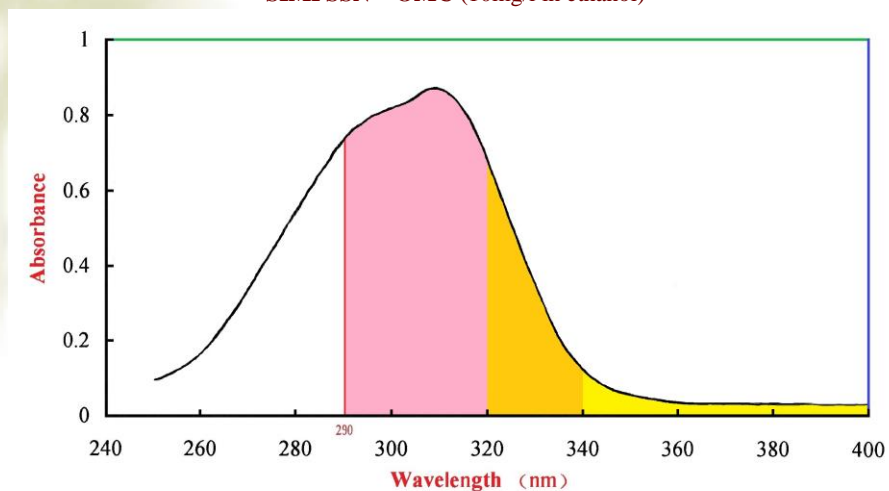
36 months in the original, closed (sealed) container (protected from sunlight), dry, at 5 - 25°C.

# SIMPSSN™ OMC

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## UV SPECTRUM:

SIMPSSN™ OMC (10mg/l in ethanol)



## PATENT SITUATION

When contemplating the use of **SIMPSSN™ OMC** in combination with other **UV filters** and **absorbers**, existing patents or patent applications should be considered.

## SIMP GROUP

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