



SIMPSSN™ IMC

(INCI Name: **Isoamyl p-Methoxycinnamate**)

**Oil Soluble UVB Filter and Absorber Active
Ingredient for
Cosmetic and Pharmaceutical Topical
Formulations**

**Product Instruction Sheet
(PIS)**



SIMP GROUP

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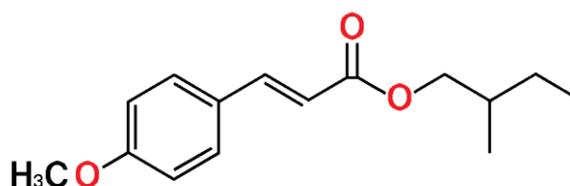
SIMPSSN™ IMC

Oil Soluble UV-B Filter and Absorber for Cosmetic and Pharmaceutical Topical Formulations

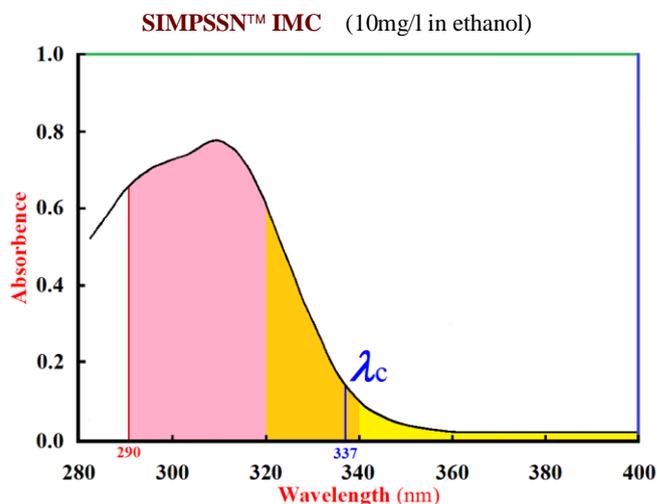
Product Information

Product Name:	SIMPSSN™ IMC
INCI Name:	Isoamyl p-Methoxycinnamate (IMC)
USP Name:	Amiloxate
Chemical name:	Isoamyl p-Methoxycinnamate Isoamyl 2-(4-Methoxyphenyl)-2-Propenoate
CAS No:	71617-10-2
EINECS No:	275-702-5
Formula:	C ₁₅ H ₂₀ O ₃
Molecular Weight:	MW =248.32 g/mol

Structural formula:



UV Absorption spectrum:



Definition, Properties, Benefits and Applications

Description: **SIMPSSN™ IMC** is natural ingredient from plants and the most frequently used **UV filter** in the world with a strong **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). E.U. and China approved use level: up to 10%. Use level in combination with other sunscreen actives: 2.0-10.0%. Approval Status: Globally approved (expt. U.S.).

EU-Functions: **UV FILTER**
(INCI) **UV ABSORBER** {Cosmetics - CosIng [EC Regulation (v.2)] 2017}.

Key Properties: **SIMPSSN™ IMC is the liquid UV-B filter, oil soluble, Water insoluble. very good protection potential, excellent dissolving properties for other solid organic UV filters. Also, it is in specially stabilized grade.**

Solubility: Soluble in organic solvents and cosmetic oils; Insoluble in water.

Solubility of SIMPSSN™ IMC in different solvents at 20°C	
Solvent	Concentration
Water	immiscible
Propylene Glycol	immiscible
Ethanol	miscible
Isopropanol	miscible
Isohexadecane	miscible
Capric/Caprylic Triglyceride	miscible
C ₁₂₋₁₅ Alkyl Benzoate	miscible
Mineral Oil	miscible
Olive Oil	miscible

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

Benefits: **SIMPSSN™ IMC** is a highly effective **UVB** filter and **UVB** absorber and has additional absorption in the short-wave **UVA** spectrum.

- **SIMPSSN™ IMC** is in specially stabilized grade.
- Suitable for a wide variety of cosmetic applications.
- **SIMPSSN™ IMC** remains a liquid at temperatures as low as -10°C.
- **SIMPSSN™ IMC** can boost the **SPF** and **PFA** when used in combination with other **UVB** and **UVA** filters.
- **SIMPSSN™ IMC** is ideal for the formulation of water-resistant sunscreen products.
- **SIMPSSN™ IMC** is an excellent solubilizer for crystalline **UV** filters and absorbers.
- Approved world-wide. Concentration maximum varies according to local legislation.
- **SIMPSSN™ IMC** is a natural ingredient, safe and effective **UVB** filter and absorber.

Applications:

The **SIMPSSN™ IMC** is used in a large number of cosmetics to protect the skin and the hair against the harmful effects of **UV** radiation.

As an oil-soluble **UV** filter, **SIMPSSN™ IMC** is an ingredient for almost every cosmetic preparations, including emulsions, oils, gels, lipsticks, nail varnishes and the like.

Skin protection:

UV radiation is responsible for various physiological effects in the skin, as a result of its high energy content. These effects include sunburn, the premature appearance of wrinkles, i. e. accelerated ageing of the skin and, with frequent intensive exposure, an increased risk of skin cancer. **SIMPSSN™ IMC** and other **SIMPSSN™ UV filters** provide vital protection for the skin against these harmful effects of **UV** radiation. They are now increasingly being used not only in sun preparations but also in other skin cosmetics such as day creams.

The use of **SIMPSSN™ IMC** and other **SIMPSSN™ UV filters** to protect the skin is subject to legislation in many countries. The concentrations of **UV** filters in sun preparations depend on the desired degree of protection, measured in terms of the sun protection factor (**SPF**). Commonly, organic **UV** filters are combined with inorganic **UV** filters in products with a high **SPF**. They can also be used together with radical scavengers, e. g. sodium ascorbyl monophosphate, vitamin E or vitamin E acetate which provide additional passive sun protection.

The combination of **SIMPSSN™ IMC** with other **SIMPSSN™ UV filters** in the personal care formulations is recommended.

Protecting sensitive products:

UV filters can be used in cosmetics to protect the colorants against fading, to improve the stability of fragrance oils and active constituents against oxidation and to stabilize the viscosity of gels and shampoos. It is always necessary to add a **UV** filter if the cosmetic product is exposed to **UV** radiation, as is the case when the packaging is transparent. The protection of products usually requires concentrations of 0.05-0.5%, rather less than for skin protection. In these concentrations, **SIMPSSN™ IMC** and other **SIMPSSN™ UV filters** are generally not subject to legislation (though such legislation as exists must be observed), all the **SIMPSSN™ UV filters** can, in principle, be used to protect products against **UV** radiation.

Important:

It is strongly recommended that **SIMPSTB™ WOSD-850 series products (Photostabilizers)** are much more suitable to protecting the sensitive products in formulations both water and oils soluble.

Protecting the hair:

Both the ultraviolet and visible components of sunlight have tangible effects on the hair in that they bleach it and make it brittle. As has been demonstrated in studies, it is possible to provide protection against these effects with **UV** filters. When **SIMPSSN™ IMC** is used together with **UV-AB** Broad-band filters such as the **SIMPSSN™ BP-3**, **SIMPSSN™ BP-4**, **SIMPSSN™ MBBT-Nt** and **UV-A SIMPSSN™ DHHB** filters, its formulations are particularly suitable and can be used in hair-care products such as gels, setting lotions, normal and gloss hair sprays.

Use level: (W/W)

(National regulations have to be observed) ≤ 10 %.

Generally: 2-7 %.

(Use as a photostabilizer) 0.05-0.5%.

REGULATIONS

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

Approval status:

Max. amounts: (W/W)

EU	China	Australia	USA	Japan
+ (10%)	+ (10%)	+ (10%)	-	+ (10%)

+ = Approved as a sunscreen agent (with max. concentration) .

Product Technical Information

COMPOSITION

(I) Ingredient(s)	INCI Name#	Amount*
SIMPSSN™ IMC	Isoamyl p-Methoxycinnamate	A

(II) Additives	INCI Name#	Amount*
Solvents	-	-
Preservative (self-preserving)	-	-
Others (buffers, antioxidants, colorants)	BHT/ Octrizole	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 & Specification*:

Appearance:	Colorless to slightly yellowish liquid, almost odorless or weak characteristic odor. (RT)	
Assay:	≥ 98	% (GC/HPLC)
Melting point:	< - 30	°C
Boiling point:	≥ 360	°C (at 760 mmHg)
Flash point:	≥ 150	°C
Density:	1.015-1.046	g/cm ³ (25°C)
Refractive Index:	1.030-1.560	n ²⁰ _D
Moisture content:	≤ 0.2	% (K. Fischer)
Solubility:	Soluble in organic solvents; Insoluble in water.	
Log POW:	~ 6.0 (Octanol / water partition coefficient)	

The specification in detail also can be seen on TDS ('Technical Data Sheet') of SIMPSSN™ IMC. A 'Technical Data Sheet' (TDS) of the product is available upon requirement.

Note:

The properties and specification in detail also can be seen on TDS ('Technical Data Sheet') of SIMPSSN™ IMC. A 'Technical Data Sheet' (TDS) of the product is available upon requirement.

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

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

Toxicological Information

Toxicological Information:

The **SIMPSSN™ IMC** has been toxicologically assessed for its suitability in cosmetic preparations. On the basis of information at our disposal and provided that the recommended concentrations and fields of application are adhered to, there is no evidence of any toxicological risk associated with their use.

Acute toxicity:

LD₅₀ / oral / rat: ≥ 9000mg/kg (BW)

Local effects: Eye: non-irritants (rabbit)

Skin: Practically non-irritating to rabbit skin (20% corn oil).

Sensitization:

Primary skin irritation / rabbit / **SIMP** test: non-irritant

Primary mucous membrane irritation / rabbits' eyes / **SIMP** test: non-irritant

Other Information:

Phototoxicity: Nonphototoxic (10% in ethanol).

Safety: **SIMPSSN™ IMC** can be safely handled without any irritation caused to the skin at recommended use level. Read and understand the **Material Safety Data Sheet (MSDS)** before using or handling this product.

Other Information

Packaging: Drums of net: 200kg / drum capacity. **order on agreement !**

Storage: Store in tightly-closed containers under normal conditions (RT).

Stability: Stable at normal conditions. The minimum storage time for the **SIMPSSN™ IMC** in the original sealed containers is at least 2 years.

Shipping / Handling: No restrictions. See **Material Safety Data Sheet (MSDS)**.

Order Information

A. Product Trade Name: SIMPSSN™ IMC

B. Package: Net: 200 kg lacquer-lined drum.
or order on agreement !

TDS & MSDS

The 'Technical Data Sheet' (TDS) and 'Material Safety Data Sheet' (MSDS) of the product also is available on requirement.

Different reference formulations with SIMPSSN™ IMC are available and can be sent on request.

Remark

Although these data and information have been prepared with the utmost possible care, we reserve the right to make changes due to product improvement and other considerations.

Contact us and credit:

SIMP GROUP

Shanghai SIMP Biotechnology Co., Ltd.

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Advice:

The information and statements presented herein, while not guaranteed, were prepared by technical personnel and, to the best of our knowledge and belief, is true and accurate as of the date hereof.

Before using one of these products of SIMP GROUP COMPANIES, read, understand and comply with the information and precautions in the **Product Instruction Sheet (PIS)**, the **Technical Data Sheet (TDS)**, the **Material Safety Data Sheets (MSDS)**, label and other literature about the product. No warranty, representation or guarantee, express or implied, is made regarding accuracy, performance, stability, reliability or use. This information is not intended to be all-inclusive, because the manner and conditions of use, handling, storage and other factors may involve other or additional safety or performance considerations. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information, products or vendors referred to herein. **NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.** Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.



Note:

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According to
《Safety and Technical Standards for Cosmetics》 (STSC) Version 2015, China.
And Regulation (EC) No. 1907/2006

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