



SIMP GROUP

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

Web site: www.simpbiotech.com

E-mail: simpbiotech@simpbiotech.com

ACTIVE INGREDIENTS

UV-Filter

SIMPSSN™ BP-3

No.: PRO-03-SIMP-0303

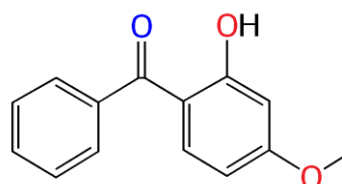


SIMPSSN™ BP-3

(Oil Soluble UV-B Filter and Absorber)

PRODUCT DESCRIPTION

INCI name:	Benzophenone-3 [Oxybenzone (INN)]
Chemical names:	2-Hydroxy-4-methoxybenzophenone;
USAN:	Oxybenzone
CAS No.:	131-57-7
EINECS:	205-031-5
Molecular Formula:	C ₁₄ H ₁₂ O ₃
Molecular Weight:	MW = 228.25 g/mol



BENEFITS and APPLICATIONS:

SIMPSSN™ BP-3 is an effective broad spectrum **UV** filter and absorber with max. protection in the short-wave **UVB** and **UVA** spectra (**UVB** at approx. 286 nm, **UVA** at approx. 325 nm).

- **SIMPSSN™ BP-3** is an oil soluble, fine-crystalline powder and practically odorless. Adequate solubility in the formulation must be ensured in order to avoid recrystallization of the **SIMPSSN™ BP-3**. The liquid UV filters and certain emollients are excellent solvents.
- Excellent co-absorber in combination with specific **UVB** filters and absorbers.
- Approved world-wide. Concentration maximum varies according to local legislation.
- **SIMPSSN™ BP-3** is a safe and effective **UVA/UVB** UV filter and absorber.

SIMPSSN™ BP-3 is used in a large number of cosmetics formulations and pharmaceuticals preparations and formulations to protect the skin or the hair, the product itself, packaged materials, particularly the colorant, the fragrance or the active ingredient against the harmful effects of UV radiation.

REGULATIONS (Approval status):

SIMPSSN™ BP-3 is approved world-wide. Concentration maximum varies according to local legislation.

Approval status:	China	EU	USA	Australia	Japan
(W/W)	+ (10%)	+ (6%)	+ (6%)	+ (10%)	+ (5%)
+ = Approved as a sunscreen agent (with max. concentration) .					

SIMPSSN™ BP-3

(Oil Soluble UV-BA Filter and Absorber)

COMPOSITION:

(I) Ingredient(s)	INCI Name#	Amount*
SIMPSSN™ BP-3	Benzophenone-3	A
(II) Additives	INCI Name#	Amount*
Solvents	-	-
Preservative (self-preserving)	-	-
Others (buffers, antioxidants, colorants)	-	-

#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*:

Identity:	IR and UV spectrum	Conforms USP
Appearance:	Pale yellow to greenish yellow fine crystalline powder, almost odorless or weak characteristic odor (RT).	
Assay:	≥ 99.0	% (GC/HPLC)
Melting Point:	≥ 62	°C
Appearance:	Clear, yellowish	(2.5%, in MeOH)
Absorbance:	≤ 0.25 (2.5%, 1 cm, in MeOH)	at 420nm
Spec. absorbance:	630-670 (1%, 1 cm, in MeOH)	at 287 nm
Spec. absorbance:	≥ 830 (1%, 1 cm, MeOH)	(308 /310 nm)
Loss on Drying:	≤ 0.5	% (40°C/V)
Moisture content:	≤ 0.5	% (K.Fischer)
Density:	1.34	g/cm ³
Log POW:	≥ 3.7 (Octanol/water partition coefficient)	

The Quality of the product **SIMPSSN™ BP-3** 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™ BP-3** of the **SIMP**, and / or **order on agreement !**

SIMPSSN™ BP-3

(Oil Soluble UV-BA Filter and Absorber)

SOLUBILITY:

Solubility of SIMPSSN™ BP-3 in different oils (solvents) at 20°C

Solvent	Concentration	Solvent	Concentration
Water	< 0.0037 g/l	Propylene Glycol	approx. 1 %
Glycerin	< 0.01 %	Liquid paraffin	approx. 1.5 %
Ethanol	6.0 %	Mineral Oil:	2%
Joboba oil	6.0 %	Isopropyl stearate	7.0 %
Olive oil	9.0 %	Isostearyl neopentanoate	8.0 %
Peanut oil	9.0 %	Isopropyl stearate	9.0 %
Decyl Oleate	9.0 %	Isopropyl myristate	11.0 %
Isopropanol	10.0 %	Capric Triglyceride	14.0 %
Butanol	10.0 %	Diethylhexyl 2,6-Naphthalate:	15.0 %
Aceton	>20 %	C ₁₂₋₁₅ Alkyl Benzoate	15.0 %
Chloroform	>20 %	PEG-7 Glyceryl Cocoate	17.0 %
Triethyl Citrate	>20 %	Diisopropyl Adipate	18%

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

SOLUBILITY of SIMPSSN™ BP-3 IN LIQUID UV FILTERS at 20°C:

liquid UV Filters	INCI Name	Approx.
SIMPSSN™ OMC:	Ethylhexyl Methoxycinnamate (OMC/EHMC)	24%
SIMPSSN™ IMC:	Isoamyl p-methoxycinnamate (IMC)	26%
SIMPSSN™ OCR:	Octocrylene (OCR)	32%
SIMPSSN™ ODPABA:	Ethylhexyl dimethyl PABA (ODPABA/EHDPABA)	23%
SIMPSSN™ OSC:	Ethylhexyl salicylate (OSC/EHSC)	21%
SIMPSSN™ HMS:	Homosalate (HMS)	19%

PACKAGE:

Net: 25 kg / drum with PE-liner or *order on agreement !*

SHELF LIFE and STORAGE CONDITIONS:

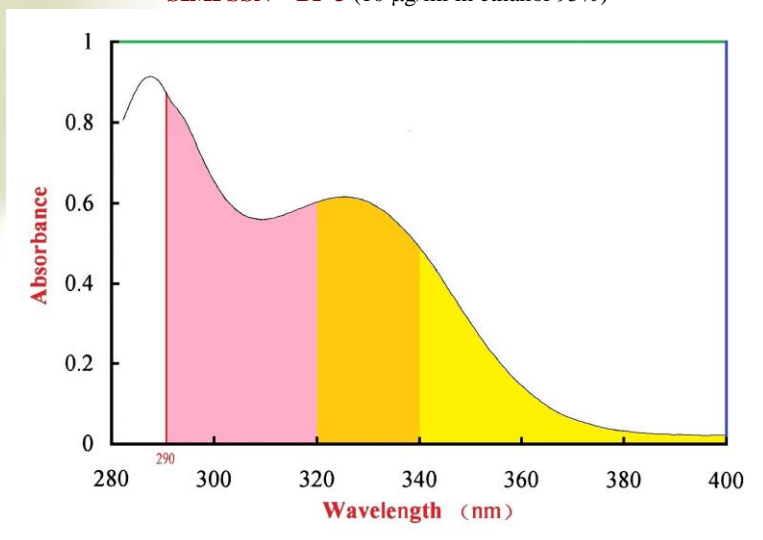
36 months in the original, closed (sealed) container (protected from sunlight), dry, at 5 - 25°C.

SIMPSSN™ BP-3

(Oil Soluble UV-BA Filter and Absorber)

UV SPECTRUM:

SIMPSSN™ BP-3 (10 µg/ml in ethanol 95%)



PATENT SITUATION

When contemplating the use of **SIMPSSN™ BP-3** in combination with other **UV filters** and **absorbers**, existing patents or patent applications should be considered.

SIMP GROUP

Shanghai SIMP Biotechnology Co., Ltd.

Web site: www.simpbiotech.com

E-mail: simpbiotech@simpbiotech.com

Address: Shang-xue Road 229 (Feng-mao Road 580), Jiading District, Shanghai 201 801, CHINA

Shanghai Headquarters: Tel: 86-21-5990 7606; 5990 7607 Fax: 86-21-5990 7602

Guangzhou Office: Tel: 86-20-6684 4588 Fax: 86-20-6684 4588

Beijing Office: Tel: 86-10-6447 5821; 6447 5822 Fax: 86-10-6447 5819