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SunCare

Newsletter PersonalCare 2/2022

SunCat JCW03 / JCW09

Encapsulated Sunscreens of the Next Generation

June 2022

Sunscreen PersonalCare Products

Since demands, legal requirements and customer wishes are constantly evolving for sun care products, continuous development is essential. So BIO-NEST, our partner for double-layered unique encapsulated organic UV Filters, has the solution:

SunCat JCW03 and JCW09 are NEW double encapsulated systems W/O/W of three internationally approved UV filters that offers protection in the UVA and UVB ranges. Tests in-vivo, in-vitro, of irritability, photo-stability and absorption, guarantee the effectiveness of the product.

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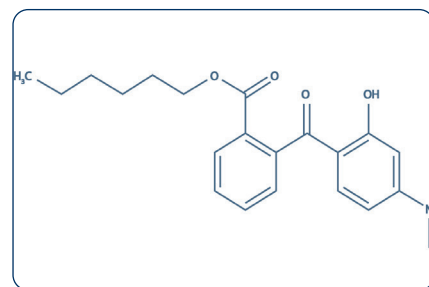
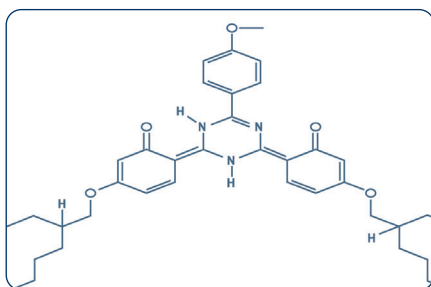
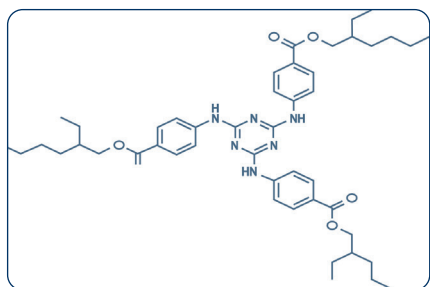
Introducing SunCat JCW03 and JCW09, Sunscreen for the Next Generation

The new sunscreen developments are mainly driven by the avoidance of two widely used UVB filters: Octocrylene (OCR) and Ethylhexyl Methoxycinnamate (EHMC).

Bio-Nest has developed SunCat JCW03 and JCW09, a new material that gives formulators greater flexibility and more importantly consumers better protection.

SunCat JCW03 and JCW09 are encapsulated blends of organic chemical filters that provide high UV protection, is non-irritating to the skin and is very easy to formulate with.

New UV Filters in SunCat JCW



Composition of SunCat JCW03

INCI NAME	CAS No.	EC No.	AMOUNT wt.%
Water	7732-18-5	231-791-2	35.9%
C12-15 Alkyl Benzoate	68411-27-8	270-112-4	20.0%
Ethylhexyl Triazone (1)	88122-99-0	402-070-1	10.0%
Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (2)	187393-00-6	-	5.0%
Diethylamino Hydroxybenzoyl Hexyl Benzoate (3)	302776-68-7	443-860-6	15.0%
Propanediol	504-63-2	207-997-3	10.0%
Phenoxyethanol (V/29)	122-99-6	204-589-7	0.7%
Hydroxyacetophenone	99-93-4	202-802-8	0.4%
Lecithin	8002-43-5	232-307-2	3.0%

Composition of SunCat JCW09

INCI NAME	CAS No.	EC No.	AMOUNT wt.%
Water	7732-18-5	231-791-2	35.9%
C12-15 Alkyl Benzoate	68411-27-8	270-112-4	20.0%
Ethylhexyl Triazone (1)	88122-99-0	402-070-1	10.0%
Diethylamino Hydroxybenzoyl Hexyl Benzoate (3)	302776-68-7	443-860-6	10.0%
Butyl Methoxydibenzoylmethane (s. (2) UV filters MTA)	70356-09-1	274-581-6	10.0%
Propanediol	504-63-2	207-997-3	10.0%
Phenoxyethanol (V/29)	122-99-6	204-589-7	0.7%
Hydroxyacetophenone	99-93-4	202-802-8	0.4%
Lecithin	8002-43-5	232-307-2	3.0%

Double Sphere Enwrapping Technology

SunCat is encapsulated using a specialised enwrapping technology that produces micron sized particles of sunscreen. The encapsulation process encloses a blend of three organic sunscreen actives inside a phospholipid shell which allows SunCat to disperse in water without the need for additional emulsifiers or solubilisers.

The particles are designed to repel each other preventing flocculation. This results in an even coating across the skin which reduces the likelihood of gaps and consequently increases the protection against UV rays.

Enhanced Protection

SunCat offers full protection over the across UVA/UVB spectrum from 280 to 400 nm. There is also a dramatic synergistic durable SPF boost if used with a low % Titanium Dioxide, without introducing any instability.

SunCat JCW is suitable for a wide range of sun care application and removes the need to stock a variety of different UV filters. It also offers exceptional stability both in it's neat form and in end-products. Our partner Bio-Nest offers FREE in-vitro SPF tests for each product formulation with SunCat.

Safer on the Skin

Due to its large particle size SunCat is unable to penetrate the skin and therefore significantly reduces the risk of irritation. The encapsulated particles are roughly 1 micron and so also elevate any fears of nanoparticles.

Easier Formulation

Since it is water dispersible, this makes SunCat significantly easier to formulate with compared to traditional UV filters. It can be added to most formulation with simply stirring and is suitable for both hot and cold mix formulations.

No guesswork is required as the SPF can be accurately predicted by reference to a simple formulation chart. The level of sun protection is directly proportional to the amount of SunCat present and is very reliable.

Summary

Benefit:

A blend of full spectrum UV filters (chemical) encapsulated in phospholipids. It is the easiest and readymade solution to add a specific SPF-level protection to any cream/gel/lotion base without the hassle of mixing several UVA and UVB filter

ingredients separately. It is safe on skin, easy to add to formulation (hot or cold, at any production stage). This product solves many of the issues SPF formulators face and allows to accurately predict the level of SPF in final product.

Imprint

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