



# UV FILTERS



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# Introduction

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These are perhaps the most difficult cosmetic ingredients to master...

In addition to the subtleties (which often turn into a headache) of the formulation, which must be effective for UV protection but also photostable, easily applicable, invisible... and without any suspected health risk, it must also be ensured that the finished product containing them can be marketed and exported without any obstacles.

And this is where things get even more complicated.

This is because some UV filters are accepted there and banned elsewhere, and sometimes the maximum concentration deemed safe, or the conditions of use, vary from one country to another.

And if the whole of Europe has standardised its regulations through the Cosmetics Regulation 1223/2009, the differences appear as soon as you cross its borders!

In order to take stock of these specificities, CosmeticOBS has compiled in this ebook the technical data sheets of all the UV filters authorised in Europe, all those listed in Annex VI of the Regulation.

For each one, the chemical identity, the toxicological profile, the conditions of use in Europe and internationally, the history of the regulations, the sources of reference...

A checklist that every sunscreen product formulator and every regulatory officer should have in hand before even starting to work on a new product!

# CAMPHOR BENZALKONIUM METHOSULFATE

**INCI Name**

Camphor benzalkonium methosulfate

**CAS No.**

52793-97-2

**English name**

Mexoryl SO

**CE No.**

258-190-8

## Origins

- Synthetic

## CosIng functions

1. Antimicrobial Agent
2. Antistatic
3. UV Absorber
4. UV Filter

## Regulation

European Cosmetics Regulation 1223/2009, Annex VI/2 (UV Filters)

### Substance Identification

**• Chemical name/INN/XAN**

N,N,N-Trimethyl-4-(2-oxoborn-3-ylidenemethyl) anilinium methyl sulfate

**• Name of Common Ingredients Glossary**

Camphor Benzalkonium Methosulfate

**• CAS number**

52793-97-2

**• EC number**

258-190-8

### Conditions

**• Product type, Body parts**

/

**• Maximum concentration in ready for use preparation (finished cosmetic product)**

6%

**• Other**

/

### International

**ASEAN**

- Authorised up to 6%

**Australia**

- Authorised up to 6%

**Brazil**

- Authorised up to 6%

**Canada**

- Non-approved filter

**China**

- Authorised up to 6%

### **India**

- Authorised up to 6%

### **Japan**

- Non-authorised filter

### **Mexico**

- Authorised up to 6%

### **New-Zealand**

- Authorised up to 6%

### **Saudi Arabia**

- Authorised up to 6%

### **South Korea:**

- -

### **Taiwan**

- Authorised up to 6%

### **United Arab Emirates**

- Authorised up to 6%

### **United Kingdom**

- Authorised up to 6%

### **United States**

- Non-approved filter

## **Knowledge to date**

### **Substance**

- N,N,N-Trimethyl-4-(2-oxoborn-3-ylidenemethyl) anilinium methyl sulfate
- Patented filter of the L'Oréal group (Mexoryl SO)

### **Profile**

- Anti-UVA and anti-UVB protection
- According to the classification provided by companies to ECHA in REACH registrations this substance causes serious eye irritation and causes skin irritation

## **References**

- **Regulation (EC) No.1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products**, Annex VI/4
- **Primary Sunscreen Monograph**, Health Canada, 7 December 2018
- **21 CFR part 352.10 - Sunscreen active ingredients, Electronic Code of Federal Regulations**, FDA, 15 August 2019
- **Ingredient Camphor benzalkonium methosulfate**, CosIng
- **Information on Chemicals - Methyl N,N,N-trimethyl-4-((4,7,7-trimethyl-3-oxobicyclo(2.2.1)hept-2-ylidene)methyl)anilinium sulphate**, ECHA website