

Product Data Sheet

Product Name: Avobenzone

Cat. No.: GC14614

Chemical Properties

Cas. No. 70356-09-1

Chemical Name 1-(4-tert-butylphenyl)-3-(4-methoxyphenyl)propane-1,3-dione

SMILES CC(C)(C)C1=CC=C(C=C1)C(=O)CC(=O)C2=CC=C(C=C2)OC

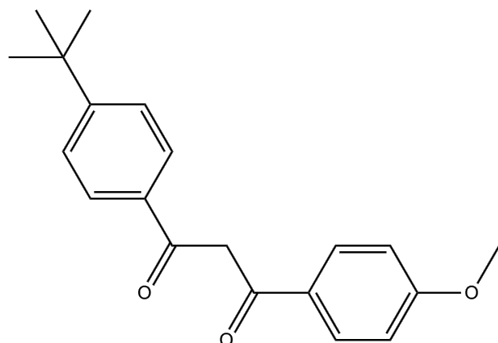
Formula $C_{20}H_{22}O_3$ M.Wt 310.39

Solubility $\geq 13.3\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Avobenzone is an oil soluble ingredient used in sunscreen products to absorb the full spectrum of UVA rays and a dibenzoylmethane derivative. Target: Others Avobenzone is an oil soluble ingredient used in sunscreen products to absorb the full spectrum of UVA rays and a dibenzoylmethane derivative. It can degrade faster in light in combination with mineral UV absorbers like zinc oxide and titanium dioxide, though with the right coating of the mineral particles this reaction can be reduced. A manganese doped titanium dioxide may be better than undoped titanium dioxide to improve avobenzone's stability. It reacts with minerals to form colored complexes. Manufacturers of

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avobenzone, like DSM recommend to include a chelator to prevent this from happening. They also recommend to avoid the inclusion of iron and ferric salts, heavy metals, formaldehyde donors and PABA and PABA esters[1].

References:

[1]. Singh, P. and O.H. Nautiyal, Synthesis of Parsol [4-(1, 1-Dimethylethyl)-4'-methoxydibenzoylmethane)]. Asian Journal of Research in Chemistry, 2011. 4(11).

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