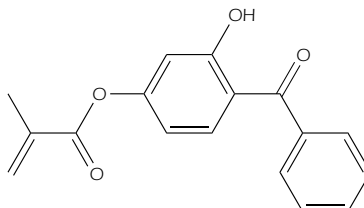


4-Methacryloxy-2-hydroxybenzophenone

High Purity Grade



C₁₇ H₁₄ O₄ MW 282.3

CASRN [2035-72-5]

This monomer (MHB) provides a means of introducing the benzophenone moiety, a strong absorber in the ultraviolet region, into polymer structures. Because the ultraviolet absorbing structure becomes a part of the polymer chain it cannot be extracted by fluids that it contacts and it is not subject to migration. As a component of the polymer structure MHB absorbs ultraviolet light preventing or reducing damage to it or to tissue or other material to be protected by the polymer. Principal applications claimed for this monomer have been in ophthalmic devices,^{1,2} films,³ coatings,⁴ and fibers,⁵ but have also included cosmetic preparations and toners.⁶

Reactivity ratios for MHB are $Q=1.57$ and $e=-0.36$.⁷ It is capable of free radical copolymerization with monomers as diverse as ethylene, methyl methacrylate, and 2-hydroxyethyl methacrylate in bulk, solution, and emulsion systems.

Other functions of MHB can be envisioned. It could possibly form part of a polymer-bound photocatalyst system or might be a photo-crosslinker in some polymer types.

MHB prepared under GMP guidelines can be supplied. Polysciences, Inc. also offers a technical grade (94%), catalog number 16989.

Physical Properties

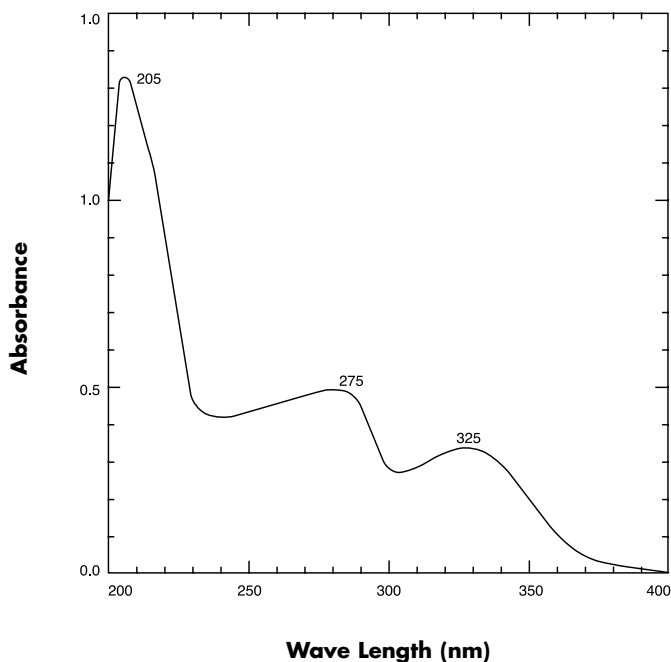
Appearance	Light yellow powder
Melting point	78-80°C
Glass transition temperature	143°C ⁷
Specific gravity	1.19*
Refractive index	1.78*
λ_{max} (in methanol)	205nm ($\epsilon = 3.03 \times 10^4$)
	275nm ($\epsilon = 1.18 \times 10^4$)
	325nm ($\epsilon = 7.23 \times 10^3$)

* Estimated from 20% solutions in methylene chloride

Specifications

Purity	Minimum 99%
Melting point	78-80°C

Ultraviolet Spectrum



Ordering Information:

Cat. #	Description	Size
23350	4-Methacryloxy-2-hydroxybenzophenone 99%	25g
16989	4-Methacryloxy-2-hydroxybenzophenone 94%	25g

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