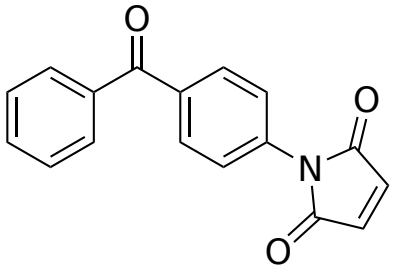
Benzophenone Maleimide

Catalog Number: 39017
Unit Size: 10 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	277.28
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Benzophenone maleimide is an excellent building block for developing benzophenone-based photoaffinity probes. It readily reacts with a biological molecule that has a thiol group such as proteins, peptides, thiol-modified oligos. Benzophenones were introduced as photocrosslinkers in the 1970s and have since become one of the most popular photocrosslinkers since they are more selective and has high affinity towards methionine. Benzophenone is converted into an active diradical upon activation by relatively long (350–365 nm) wavelengths. Early work demonstrated that Benzophenone was more suitable for biological applications than other simple aryl ketones (e.g., acetophenones) because the conditions required for photolysis are less damaging to the protein primary structure. Benzophenone generates a triplet ketyl biradical that can react with protein functional groups via a sequential abstraction–recombination mechanism.