

Product Data Sheet

Product Name: 7-PPD-Q

Cat. No.: GC91624

Chemical Properties

Cas. No. 2894124-00-4

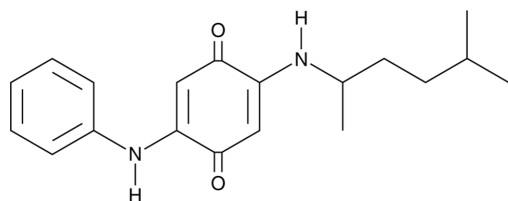
Formula $C_{19}H_{24}N_2O_2$ M.Wt 312.4

Solubility Chloroform: Soluble ≥ 10 mg/ml Storage -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

7-PPD-Q is an oxidized derivative of the tire antiozonant and a substituted *p*-phenylenediamine 7-PPD.^[1] It is toxic to the bacterium *V. fischeri* ($\text{EC}_{50} = 14.9$ mg/L). It has been found in fine particulate matter 2.5 ($\text{PM}_{2.5}$) samples collected at the roadside in China.^[2]

References:

[1]. Wang, W., Chen, Y., Fang, J., et al. Toxicity of substituted *p*-phenylenediamine antioxidants and their derived novel quinones on aquatic bacterium: Acute effects and mechanistic insights. *J. Hazard. Mater.* 469:133900(2024).

[2]. Wang, W., Cao, G., Zhang, J., et al. Beyond substituted *p*-phenylenediamine antioxidants: Prevalence of their quinone derivatives in $\text{PM}_{2.5}$. *Environ. Sci. Technol.* 56(15):10629-10637(2022).

Caution: Product has not been fully validated for medical applications. For research use only.

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