

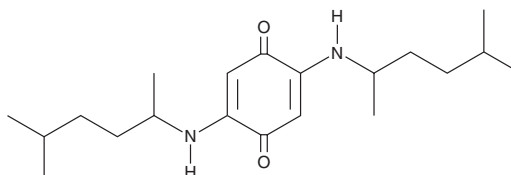
PRODUCT INFORMATION



77PD-Q

Item No. 40927

CAS Registry No.: 3078541-61-1
Formal Name: 2,5-bis[(1,4-dimethylpentyl)amino]-
2,5-cyclohexadiene-1,4-dione
Synonym: N,N'-bis(1,4-dimethylpentyl)-p-
Phenylenediamine-quinone,
N,N'-bis(1,4-dimethylpentyl)-para-
Phenylenediamine-quinone
MF: C₂₀H₃₄N₂O₂
FW: 334.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

77PD-Q is supplied as a solid. A stock solution may be made by dissolving the 77PD-Q in the solvent of choice, which should be purged with an inert gas. 77PD-Q is slightly soluble (0.1-1 mg/ml) in acetonitrile and chloroform.

77PD-Q is slightly soluble (0.1-1 mg/ml) in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

77PD-Q is a p-phenylenediamine quinone (PPD-Q) and an oxidized derivative of the antiozonant 77PD.¹ It is toxic to the aquatic bacterium *V. fischeri* (EC₅₀ = 13.6 mg/L). It has been found in fine particulate matter 2.5 (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 PM_{2.5}. *Environ. Sci. Technol.* **56(15)**, 10629-10637 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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