

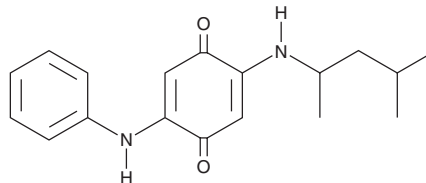
PRODUCT INFORMATION



6-PPD-Q

Item No. 38247

CAS Registry No.: 2754428-18-5
Formal Name: 2-[(1,3-dimethylbutyl)amino]-5-(phenylamino)-2,5-cyclohexadiene-1,4-dione
Synonym: 6-PPD-quinone
MF: C₁₈H₂₂N₂O₂
FW: 298.4
Purity: ≥95%
UV/Vis.: λ_{max}: 253, 354 nm
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

6-PPD-Q is supplied as a solid. A stock solution may be made by dissolving the 6-PPD-Q in the solvent of choice, which should be purged with an inert gas. 6-PPD-Q is soluble in dimethyl formamide.

Description

6-PPD-Q is a substituted *p*-phenylenediamine (PPD) quinone, oxidized transformation product of the tire rubber antioxidant 6-PPD (Item No. 38246), and an environmental toxicant.¹ 6-PPD-Q has been detected as a contaminant in atmospheric particles, road dust, and various aquatic sources, including surface water, stormwater, and wastewater, among other media.^{1,2} 6-PPD-Q is highly toxic to aquatic organisms, including salmon and zebrafish, and induces oxidative stress, DNA damage, inflammation, and reproductive dysfunction in model organisms.¹

References

1. Zhang, S., Tang, J., Qiu, Z., *et al.* Environmental and human health risks of 6PPD and 6PPDQ: Assessment and implications. *Toxics* **13(10)**, 873 (2025).
2. Bohara, K., Timilsina, A., Adhikari, K., *et al.* A mini review on 6PPD quinone: A new threat to aquaculture and fisheries. *Environ. Pollut.* **340(Pt 2)**, 122828 (2024).

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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