SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

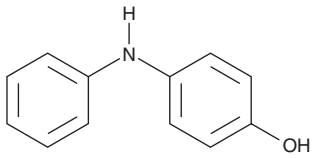
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

4-Hydroxydiphenylamine

Item No. 40730

CAS Registry No.:	122-37-2
Formal Name:	4-(phenylamino)-phenol
Synonyms:	4-HDPA, *p*-Hydroxydiphenylamine, *para*-Hydroxydiphenylamine, NSC 1543
MF:	$C_{12}H_{11}NO$
FW:	185.2
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

4-Hydroxydiphenylamine (4-HDPA) is supplied as a solid. A stock solution may be made by dissolving the 4-HDPA in the solvent of choice, which should be purged with an inert gas. 4-HDPA is soluble (≥10 mg/ml) in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 4-HDPA can be prepared by directly dissolving the solid in aqueous buffers. 4-HDPA is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

4-HDPA is an aqueous transformation product of the substituted *p*-phenylenediamine and antiozonant 6-PPD (Item No. 38246).[1] It is also a biotransformation product of 6-PPD in zebrafish embryos and an active metabolite of the antioxidant and pesticide diphenylamine (Item No. 24250).[2,3] 4-HDPA scavenges carbon radicals in an AIBN-induced methyl methacrylate polymerization assay in a concentration-dependent manner.[4] It has been found in tire wear particles, roadway runoff, and roadway-impacted creeks.[1]

References

1. Zhao, H.N., Hu, X., Tian, Z., *et al.* Transformation products of tire rubber antioxidant 6PPD in heterogeneous gas-phase ozonation: Identification and environmental occurrence. *Environ. Sci. Technol.* **57(14),** 5621-5632 (2023).
2. Grasse, N., Seiwert, B., Massei, R., *et al.* Uptake and biotransformation of the tire rubber-derived contaminants 6-PPD and 6-PPD quinone in the zebrafish embryo (*Danio rerio*). *Environ. Sci. Technol.* **57(41),** 15598-15607 (2023).
3. Alexander, W.E., Ryan, A.J., and Wright, S.E. Metabolism of diphenylamine in the rat, rabbit and man. *Food Cosmet. Toxicol.* **3(4),** 571-579 (1965).
4. Fujisawa, S., Ishihara, M., and Kadoma, Y. Antioxidant activity of diphenylamine–related compounds as scavengers of carbon radicals. *J. Mol. Des.* **4,** 711-720 (2005).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM