

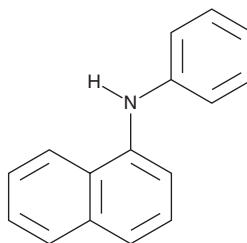
PRODUCT INFORMATION



N-Phenyl-1-naphthylamine

Item No. 42579

CAS Registry No.: 90-30-2
Formal Name: N-phenyl-1-naphthalenamine
Synonyms: C.I. 44050, α -Naphthylphenylamine, NPN, NSC 2622, PNA
MF: $C_{16}H_{13}N$
FW: 219.3
Purity: $\geq 98\%$
Ex./Em. Max: 355/405 nm
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

N-Phenyl-1-naphthylamine (PNA) is supplied as a solid. A stock solution may be made by dissolving the PNA in the solvent of choice, which should be purged with an inert gas. PNA is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

PNA is a naphthalene-substituted phenylamine.¹ It is toxic to the aquatic bacteria *M. aeruginosa* ($EC_{50} = 16.62 \mu M$). PNA (500 mg/kg per day) increases serum levels of albumin and bilirubin, decreases blood levels of erythrocytes and hemoglobin, increases liver weight, and induces hepatocyte hypertrophy in male mice.² It has been found in human breastmilk.³ PNA displays excitation/emission maxima at 355/405 nm, respectively.⁴ It has been used as a probe in studies assessing membrane permeability in Gram-negative bacteria.

References

1. Cheng, L., He, Y., Tian, Y., *et al.* Comparative biotoxicity of N-phenyl-1-naphthylamine and N-Phenyl-2-naphthylamine on cyanobacteria *Microcystis aeruginosa*. *Chemosphere* **176**, 183-191 (2017).
2. Tanabe, S., Ohara, M., Ito, M., *et al.* Toxicity in repeated 28-day oral administration of N-phenyl-1-naphthylamine in rats. *Fundam. Toxicol. Sci.* **4(5)**, 207-218 (2017).
3. Liang, B., Ge, J., Deng, Q., *et al.* Occurrence of multiple classes of emerging synthetic antioxidants, including p-phenylenediamines, diphenylamines, naphthylamines, macromolecular hindered phenols, and organophosphites, in human milk: Implications for infant exposure. *Environ. Sci. Technol. Lett.* **11(3)**, 259-265 (2024).
4. Helander, I.M. and Mattila-Sandholm, T. Fluorometric assessment of gram-negative bacterial permeabilization. *J. Appl. Microbiol.* **88(2)**, 213-219 (2000).

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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