# PRODUCT INFORMATION



# 4-Nitrodiphenylamine

Item No. 40729

CAS Registry No.: 836-30-6

Formal Name: 4-nitro-N-phenyl-benzenamine

Synonyms: 4-nDPA, NSC 33836

MF:  $C_{12}H_{10}N_2O_2$ 

FW: 214.2 **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-Nitrodiphenylamine is supplied as a solid. A stock solution may be made by dissolving the 4-Nitrodiphenylamine in the solvent of choice, which should be purged with an inert gas. 4-Nitrodiphenylamine is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

#### Description

4-Nitrodiphenylamine is an aromatic amine antioxidant and a component of both burnt gunshot residue and unburnt gunpowder. 1,2 Formulations containing 4-nitrodiphenylamine have been used as stabilizing additives and antiozonants in rubber.

#### References

- 1. Guo, Z., Cheng, Z., Zhang, S., et al. Unexpected exposure risks to emerging aromatic amine antioxidants and p-phenylenediamine quinones to residents: Evidence from external and internal exposure as well as hepatotoxicity evaluation. Environ. Health Online ahead of print, (2024).
- 2. Shafirovich, T., Aligholizadeh, D., Johnson, M., et al. Point-and-shoot: Portable Raman and SERS detection of organic gunshot residue analytes. Vib. Spectrosc. 131, 103669 (2024).

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

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.

## WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/02/2024

### **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