

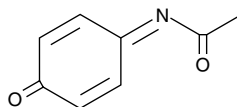
Product Information



N-Acetyl-4-benzoquinone imine

Item No. 16115

CAS Registry No.:	50700-49-7
Formal Name:	N-(4-oxo-2,5-cyclohexadien-1-ylidene)-acetamide
Synonyms:	NAPQI, N-Acetyl- <i>p</i> -benzoquinonimine
MF:	C ₈ H ₇ NO ₂
FW:	149.2
Purity:	≥90%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ _{max} : 260 nm



Laboratory Procedures

For long term storage, we suggest that N-acetyl-4-benzoquinone imine (NAPQI) be stored as supplied at -20°C. It should be stable for at least two years.

NAPQI is supplied as a crystalline solid. A stock solution may be made by dissolving the NAPQI in the solvent of choice. NAPQI is soluble in organic solvents such as chloroform, ether, and ethyl acetate, which should be purged with an inert gas. The solubility of NAPQI in these solvents is approximately 1 mg/ml.

NAPQI is a cytochrome P450 3A4 and 2E1 metabolite of acetaminophen that can be toxic to the liver when acetaminophen is consumed in large doses.¹ At therapeutic doses of acetaminophen, NAPQI is inactivated by conjugation with glutathione. However, following toxic doses of acetaminophen, available liver reserves of glutathione are quickly depleted due to clearance of excess NAPQI, which enables hepatic proteins to become covalently modified by reactive metabolites and eventually results in hepatocyte necrosis.¹

Reference

1. Qiu, Y., Benet, L.Z., and Burlingame, A.L. Identification of the hepatic protein targets of reactive metabolites of acetaminophen *in vivo* in mice using two-dimensional gel electrophoresis and mass spectrometry. *J. Biol. Chem.* **273**, 17940-17953 (1998).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16115

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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