



KALPASTHANA LIFE CARE PRODUCTS PVT. LTD.

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TECHNICAL DATA SHEET

4-Hydroxycarbazole (4-Carbazolol)

CAS No: 52602-39-8

PRODUCT DESCRIPTION

A specialized heterocyclic isomer (commonly known as 4-Hydroxy-9H-carbazole, 4-Carbazolol, or 9H-Carbazol-4-ol) and high-purity intermediate specifically designed for the synthesis of the cardiovascular drug Carvedilol. This specific isomer is primarily utilized in the synthesis of Carvedilol for heart failure management. Our production process focuses on maximizing the purity of the 4-hydroxy isomer while minimizing by-products for superior pharmaceutical quality.

SPECIFICATIONS

Product Name	4-Hydroxycarbazole
Synonyms / Abbreviations	4-Hydroxy-9H-carbazole, 4-Carbazolol, 9H-Carbazol-4-ol, Carvedilol Intermediate
CAS Number	52602-39-8
Molecular Formula	C ₁₂ H ₉ NO
Molecular Weight	183.21 g/mol
Appearance	White to Light Brown Powder
Purity (HPLC)	≥ 99.0%
Melting Point	165°C - 168°C

APPLICATIONS & USAGE

4-Hydroxycarbazole is a pivotal heterocyclic intermediate specifically manufactured for the synthesis of Carvedilol, a non-selective beta-blocker/alpha-1 blocker for hypertension and heart failure. Additionally, it serves as a key building block for carbazole-based organic semiconductors, high-performance optical materials, antioxidants, and anti-inflammatory compounds under therapeutic research.

- Carvedilol API Precursor: Undergoes selective epoxidation with epichlorohydrin to form epoxy propoxy carbazole, the direct precursor to Carvedilol.
- Isomeric Precision: Strictly monitored manufacturing to ensure ultra-low levels of the 2-hydroxy isomer, maximizing downstream chemical yields.
- Material Science & Electronics: Precursor for photorefractive polymers, holographic materials, and high-stability OLED hole transport layers.

DISCLAIMER & SAFETY

Disclaimer: The information contained in this Technical Data Sheet is accurate to the best of our knowledge. It is provided for informational purposes only. The user assumes all risk and liability for the product's use in manufacturing or commercial applications. Products are intended for industrial manufacturing and laboratory research purposes only. Please refer to the Material Safety Data Sheet (MSDS) for detailed safety, handling, storage, and disposal guidelines.