KALPASTHANA LIFE CARE PRODUCTS PVT. LTD.

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TECHNICAL DATA SHEET

Epoxy Propoxy Carbazole

CAS No: 51997-51-4

PRODUCT DESCRIPTION

A high-purity crystalline intermediate (commonly referred to as Epoxy Propoxy Carbazole or 4-glycidyloxycarbazole) widely utilized as the key starting material (KSM) in the synthesis of Carvedilol and other carbazole-based pharmaceuticals. With an active oxirane ring attached to a carbazole nucleus, this compound reacts selectively with nucleophilic amines. Kalpasthana Life Care Products ensures strict limits on residual solvents and enantiomeric purity to support premium pharmaceutical applications.

SPECIFICATIONS

Product Name	Epoxy Propoxy Carbazole
Synonyms / Alternate Names	4-(Oxiran-2-ylmethoxy)-9H-carbazole, 4-Glycidyloxycarbazole, Carvedilol Epoxy Intermediate
CAS Number	51997-51-4
Molecular Formula	C15H13NO2
Molecular Weight	239.27 g/mol
Appearance	White to off-white crystalline solid
Purity (HPLC)	≥ 99.0%
Melting Point	110°C - 114°C

APPLICATIONS & USAGE

Epoxy Propoxy Carbazole (4-(2,3-Epoxypropoxy)carbazole) is a specialized heterocyclic epoxide intermediate. It is the direct key starting material (KSM) for synthesizing the cardiovascular API Carvedilol. Additionally, its highly reactive oxirane ring makes it a valuable building block for specialized high-temperature epoxy resins, thermal-resistant adhesives, and adrenergic receptor ligand research.

- Carvedilol API Synthesis: Undergoes precise ring-opening condensation with 2-(2-methoxyphenoxy)ethylamine to produce high-purity Carvedilol.
- Specialty Epoxy Materials: Used in manufacturing high-performance carbazole-modified epoxy resins with excellent dielectric properties.
- Medicinal Chemistry Scaffold: Excellent scaffold for synthesizing compound libraries for cardiovascular and beta-adrenergic studies.

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.*

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