



KALPASTHANA LIFE CARE PRODUCTS PVT. LTD.

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TECHNICAL DATA SHEET

Monomethyl Adipate

CAS No: 627-91-8

PRODUCT DESCRIPTION

A high-purity mono-ester intermediate (commonly referred to as Monomethyl Adipate or Methyl Hydrogen Adipate) widely utilized as an intermediate in polymer chemistry, plasticizers, and organic synthesis building blocks. Featuring one ester and one carboxylic acid group, this compound provides direct orthogonal handles for block copolymer synthesis and chemical modifications. Kalpasthana Life Care Products manufactures high-assay Monomethyl Adipate under strict GMP-compliant quality controls.

SPECIFICATIONS

Product Name	Monomethyl Adipate
Synonyms / Alternate Names	Methyl hydrogen adipate, Hexanedioic acid monomethyl ester, Adipic acid monomethyl ester
CAS Number	627-91-8
Molecular Formula	C7H12O4
Molecular Weight	160.17 g/mol
Appearance	Colorless to light yellow liquid or low-melting solid
Purity (GC)	≥ 98.0%
Boiling Point	162°C at 10 mmHg

APPLICATIONS & USAGE

Monomethyl Adipate (Methyl Hydrogen Adipate) is an asymmetric adipate ester. It is the direct starting material for manufacturing Methyl Adipoyl Chloride, which is the key building block for Alpha Lipoic Acid. Due to its dual carboxyl-ester functionality, it is widely used in synthesizing lubricants, plasticizers, specialized nylon copolymers, adhesives, and organic synthesis intermediates.

- Precursor to Methyl Adipoyl Chloride: Readily chlorinated with thionyl chloride to yield Methyl Adipoyl Chloride for downstream API synthesis.
- Asymmetric Ester Reactivity: Allows selective esterification, amidation, or reduction on the free carboxylic acid side without affecting the methyl ester.
- Advanced Polymers & Lubricants: Used to produce biodegradable polyesters, hot-melt adhesives, and specialty aviation lubricants.

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.