# **ADIPIC ACID**

CAS Number: 124-04-9

Other Names: Adipic Acid, 1,6-Hexanedioic acid,

Butane-1,4-dicarboxylic acid, Hexan-1,6- dicarboxylate,

Acifloctin

Formula: C<sub>6</sub>H<sub>10</sub>O<sub>4</sub>



## PRODUCT INTRODUCTION

Adipic acid (hexanedioic acid) is the organic compound with the formula  $(CH_2)_4(COOH)_2$ . It is an alpha,omega-dicarboxylic acid that is the 1,4-dicarboxy derivative of butane. Adipic acid is a white crystalline solid and it is considered as an important industrial dicarboxylic acid with about 2. 5 billion kilograms manufactured per year, mainly as a precursor for the production of nylon.

### PHYSICAL AND CHEMICAL PROPERTIES

Purity (m/m)	99.87%
Appearance	White Crystalline Powder
Colour (Pt-co)	1
Melting Point (°C)	153.1
Water Content (m/m)	0.11%
Nitric Acid Content, (mg/kg)	3
Iron content, (mg/kg)	0.42
Ash content, (mg/kg)	3.5

#### **APPLICATIONS**

- The largest global use of adipic acid is to produce nylon 6,6, which accounts for approximately 70% of global output. Annual global production of adipic acid is approximately 2.5 million tons.
- Adipic acid has been incorporated into controlled-release formulation matrix tablets to obtain pHindependent release for both weakly basic and weakly acidic drugs. It has also been
  incorporated into the polymeric coating of hydrophilic monolithic systems to modulate the
  intragel pH, resulting in zero-order release of a hydrophilic drug, in production of Plasticizes,
  poly-amides, Polyesters and herbicides in paint and varnish and textile industries.
- Adipic acid functions primarily as an acidifier, buffer, gelling aid, and sequestrant. It is used in confectionery, cheese analogs, fats, and flavoring extracts. Because of its low rate of moisture absorption, it is especially useful in dry products such as powdered fruit-flavored beverage mixes, leavening systems of cake mixes, gelatin desserts, evaporated milk, and instant puddings.

#### **PACKAGING OPTIONS**

**Drums** 

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