## **Darwin Chemical Company**

600 N Pine Island Road Plantation FL 33324-1311



## Adipic Acid **Adipic Acid**

Catalog Nr. Q022

**Definition** Adipic acid is the organic compound with the formula (CH2)4(CO2H)2. From the

industrial perspective, it is the most important dicarboxylic acid: About 2.5 billion kilograms of this white crystalline powder are produced annually, mainly as a precursor for the production of nylon. Adipic acid otherwise rarely occurs in nature.

**CAS Number** 124-04-9

Polyurethanes. **Application** 

> By far the majority of the 2.5 billion kg of adipic acid produced annually is used as monomer for the production of nylon by a polycondensation reaction with hexamethylene diamine forming 6,6-nylon. Other major applications also involve polymers: it is a monomer for production of Polyurethane and its esters are

plasticizers, especially in PVC.

In foods

Small but significant amounts of adipic acid are used as a food ingredient as a flavorant and gelling aid. It is ironically used in some calcium carbonate antacids to

make them tart.

**Technical** Data

Appearance White crystals Density 1.36 g/cm<sup>3</sup> Melting point 152 °C (425 K) Boiling point 337 °C (610 K) Solubility in water fairly soluble[1] 4.43, 5.41 Acidity (pKa) 232 °C Flash point

Related dicarboxylic acids glutaric acid, pimelic acid

Related compounds hexanoic acid

**Packaging** & Handling 500 - 1000 kg Big Bags

**UN Number** Class **Packaging Group** 

## Remarks

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