

# Product Information

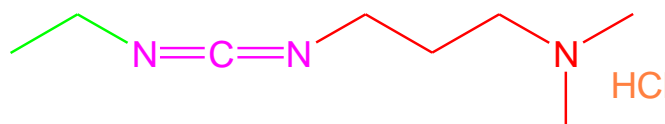
## N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride

**Product Number: 050403**

### Synonyms

N-Ethyl-N'-(3-dimethylaminopropyl)carbodiimide hydrochloride

EDC hydrochloride



### Specifications

CAS Number: 25952-53-8

M.F. (Repeat Unit):  $C_8 N_3 H_{17} \cdot HCl$

M.W. (Repeat Unit):  $191.70 \text{ g}\cdot\text{mol}^{-1}$

Appearance (Form): Powder

Appearance (Color): White

FTIR Spectrum: Conforms to Structure

Store: at  $-20 \text{ }^\circ\text{C}$

Purity:  $\geq 98\%$

Proton NMR Spectrum: Conforms to Structure

Solubility (Water): up to  $c = 200 \text{ mg}\cdot\text{mL}^{-1}$

Solubility (Turbidity): Clear

Insoluble Matter:  $< 0.1\%$

### Description

EDC hydrochloride is a water-soluble carbodiimide and commonly employed in the pH range of 4 - 6. EDC is generally used as a carboxyl activating agent to link primary amines to carboxylic acids by forming an activated ester leaving group. The main advantage of EDC over other carbodiimides in biomolecules synthesis or surface modification of substrates is the higher solubility of EDC and its urea by-product in aqueous media. It is usually used in combination with N-hydroxysuccinimide to stabilize the activated carboxyl group.

### Applications

EDC is widely used to activate carboxyl groups in peptide synthesis, phosphate groups in synthesis of phosphomonoesters and phosphodiester, and to crosslink proteins and nucleic acids.

### Precautions

For laboratory and research use. Not for drug, household or other uses.

### Stability

The EDC hydrochloride is stable for at least 3 months at  $-20 \text{ }^\circ\text{C}$ . Storage of the stock powder at room temperature for more than 1 week may cause decomposition and yield incorrect results.

### Packaging

1 and 5 g in plastic bottle