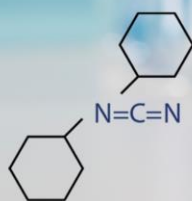


N,N'- DICYCLOHEXYLCARBODIIMIDE



PRODUCT IN FOCUS



N,N'-Dicyclohexylcarbodiimide

INTRODUCTION

N,N'-Dicyclohexylcarbodiimide, acronymed as DCCD by chemists, is a versatile reagent in organic syntheses. Its reactivity is due to the presence of carbodiimide group in its structure. The compound undergoes various reactions to form APIs and intermediates.

Manufacture

It is manufactured from N,N'-dicyclohexylurea either by using phosphorous oxychloride or phosphorous pentoxide.

Synonyms	DCCD Carbodicyclohexylimide
CAS no.	538-75-0
EINECS no.	208-704-1
Molecular formula	C ₁₃ H ₂₂ N ₂
Molecular weight	206.33
Structure	<chem>C1CCC(CC1)N=C(N2CCCCC2)N</chem>

Applications

APIs:

The diimide is used in the synthesis of APIs such as:

- ✔ Benexate HCl, an anti-ulcer drug
- ✔ Angiotensin II, an anti-hypertensive drug and a peptide hormone
- ✔ Docetaxel, an anti-cancer drug, also used in treatment of chronic heart failures

Intermediates:

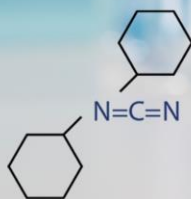
DCCD is used as a reagent in the synthesis of intermediates like:

- ✔ 2-Cyanopyridine-4-carboxaldehyde
- ✔ Gly-7-amino-4-methylcoumarin
- ✔ (S)-3-Aminoquinuclidine dihydrochloride

Others:

- ✔ As dehydrating agent
- ✔ As coupling agent in APIs and peptides
- ✔ In synthesis of acid anhydrides, aldehydes, ketones, and isocyanates
- ✔ In inversion and esterification of secondary alcohols

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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	Colorless to pale yellow liquid to semi-solid
Identification by GC	-	The retention time of the major peak in the chromatogram of the sample solution corresponds to that in the chromatogram of the standard solution
Solubility	-	Soluble in methanol and sparingly soluble in acetone
Purity by GC	%	Min 99.0

STORAGE

Stored at ambient temperature.

PACKING

35 kg UN approved Jerrycan.

REACH Status

Not registered yet.

ExSyn offers N,N'-dicyclohexylcarbodiimide on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.