

# 1,3-DIMETHYL-2-IMIDAZOLIDINONE

## PRODUCT IN FOCUS



## 1,3-Dimethyl-2-imidazolidinone

### INTRODUCTION

1,3-Dimethyl-2-imidazolidinone, popular as DMI solvent, is a high boiling aprotic polar molecule. Apart from being a common solvent in derivative GC, it finds applications in diverse industrial verticals.

### Manufacture

The solvent is produced on large scale from ethylenediamine in a multi-step synthesis that also consumes urea, methyl trioctyl ammonium chloride, and dimethyl sulphate as key raw materials.

### Applications

DMI solvent is used in synthesis of:

- ✔ Mirabegron, a drug that eases symptoms of overactive bladder
- ✔ Itraconazole, an anti-fungal API
- ✔ Donepezil, an API to improve memory and awareness in Alzheimer patients
- ✔ Pigment Blue 60
- ✔ 4-Chloro-1-benzothiophene
- ✔ 2-Fluoro-5-bromobenzonitrile
- ✔ 1,2-Bis(trimethylsilyl)benzene
- ✔ 3,5-Difluorochlorobenzene

The solvent is also used as replacement of the toxic solvent hexamethylphosphoramide.

It is applied as humectant in cosmetics and its applications in dyestuffs, electronic materials, cellulose, and polymers are also cited.

#### Synonyms

N,N'-Dimethylethyleneurea  
Dimethylimidazolidinone

#### CAS no.

80-73-9

#### EINECS no.

201-304-8

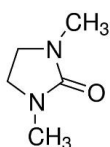
#### Molecular formula

$C_5H_{10}N_2O$

#### Molecular weight

114.15

#### Structure



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### SPECIFICATIONS

Test	Unit	Specification
Appearance	-	Colorless to pale yellow liquid
Color	APHA	Max 50.0
Specific gravity at 25 deg cel	-	1.050 – 1.060
Refractive index	-	1.468 – 1.473
Moisture by KF	%	Max 1.0
Purity by GC	%	Min 99.0

### STORAGE

The product is stored at ambient temperature.

### PACKING

200 kg HDPE drum.

### REACH Status

Not Registered yet.

ExSyn offers 1,3-dimethylimidazolidin-2-one 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.